The MODERN HOSPITAL

Vol. X February, 1918 No. 2

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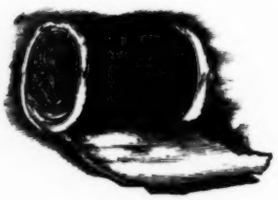

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. X *February, 1918* No. 2

THE TRANSFORMATION OF A DWELLING HOUSE INTO A HOSPITAL

Requirements of a House to Be Used as a Hospital—Evolution of a New England Homestead—Two Stages in the Growth of the Charles Choate Memorial Hospital

By EDWARD F. STEVENS, Architect, Boston

IN these days of tense feeling on the subject of the care of the soldiers at the front and of the desire on everyone's part "to do his bit," many offers are made of dwellings and of buildings of all kinds for the housing and care of returned or sick soldiers. Every hospital is throwing its doors wide open, and, in many cases, offering to double its capacity by utilizing its "waste" or unused space, or by erecting temporary units of portable

Fig. 1. The Choate homestead at Woburn, Mass., as it originally stood.

or "knock-down" construction, or by the utilization of existing buildings near the hospital proper. Many of the fine palaces and beautiful homes in France and Belgium have served for hospitals during the present world war.

The larger and more symmetrical the house, the better the hospital it will make. Not every house will develop into a good hospital, however, for there are many essentials required by the hospital which are not required in the house. The house, if it is to be used as a general surgical and medical hospital, must have a room which can be adapted into a well-lighted operating room with its adjacent utilities; also rooms of sufficient size to accommodate a reasonable number of beds; and rooms for the cooking and serving of meals. When a house of this character can be found, then it is practicable to utilize it for a hospital, with proper care of details.

The selection of the house to be used must have the same care as the selection of a site for a new hospital; that is, there must be sufficient light and air about the building to insure good ventilation;

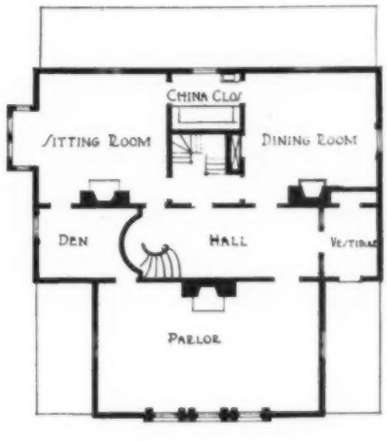

Fig. 2. First floor of the Choate homestead before modification.

there must be freedom from disturbance from adjoining property, and, if possible, a pleasing view from the building. Care should be taken to select a house where the sunshine penetrates the principal rooms.

The transformation of a house into a hospital, illustrating this paper, has been made by me at two different periods — in 1909 when the old

Choate homestead at Woburn was given to the Woburn Charitable Society, and again in 1916 when that institution, growing from the small beginning, was developed into a hospital of moderate proportions and capable of still further increase.

In the first development it will be seen how, with very modest changes, a fairly workable hospital was evolved. The exterior of the Choate

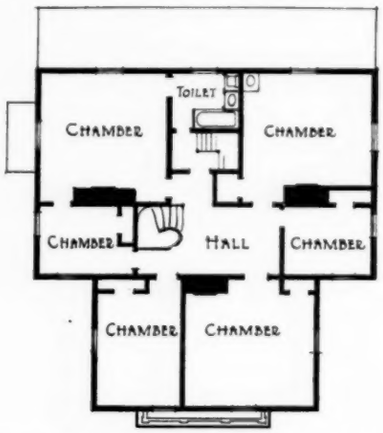

Fig. 3. Second floor of the Choate homestead.

homestead (Fig. 1) was of the type one often encounters in New England especially, built in the sixties, with great double parlors, heavy cornices and finish, stately dining room and serving pantry, and basement kitchen. All of this, however, lent itself to "hospital treatment," as will be seen by comparing the plans of the original house

Fig. 4. The Charles Choate Memorial Hospital as produced by the first modification of the Choate homestead.

(Figs. 2, 3) with those of the replanned hospital (Figs. 5, 6, 7). The funds available for alterations were small and the changes necessarily restricted.

The grand parlor made an excellent five-bed ward without change, while the sitting room served as a children's ward, and the little den as the hospital office. The circular stairs had to go, and were replaced by more commodious stairs, up which the stretcher could be carried. The dining room was cut into a corridor, a serving kitchen, and a linen closet. The garden porch served as an airing balcony.

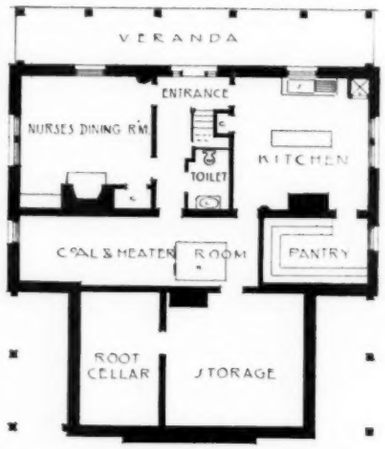

Fig. 5. Basement floor plan of the Choate Hospital as first remodeled. The laundry has been made into a nurses' dining room; otherwise little change has been made.

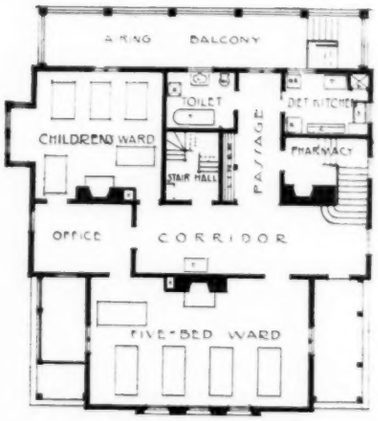

Fig. 6. First floor of the Choate Hospital after first remodeling. The parlor and sitting room have been transformed into wards; the den has been made into an office. The circular stairway has been removed.

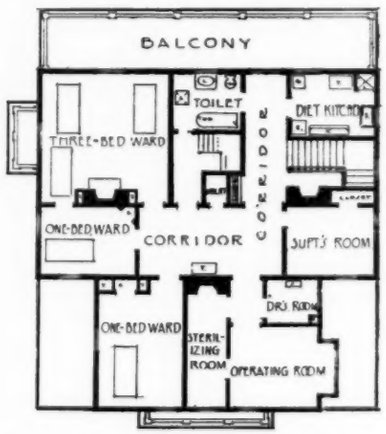

Fig. 7. Second story of the Choate Hospital after first remodeling. One large bedroom has been transformed into an operating room and another into a diet kitchen. The others have become wards and superintendent's room, respectively.

The second story also developed simply and inexpensively. A good operating room and accessories were made from one of the large chambers, while another served as a second-story serving room. The balcony was extended to this story.

The changes in the basement were small. The kitchen needed no change; the old laundry served nicely for a nurses' dining room; in the attic, the servants' rooms were used for nurses. Thus the Charles Choate Memorial Hospital started out as a complete fourteen-bed institution.

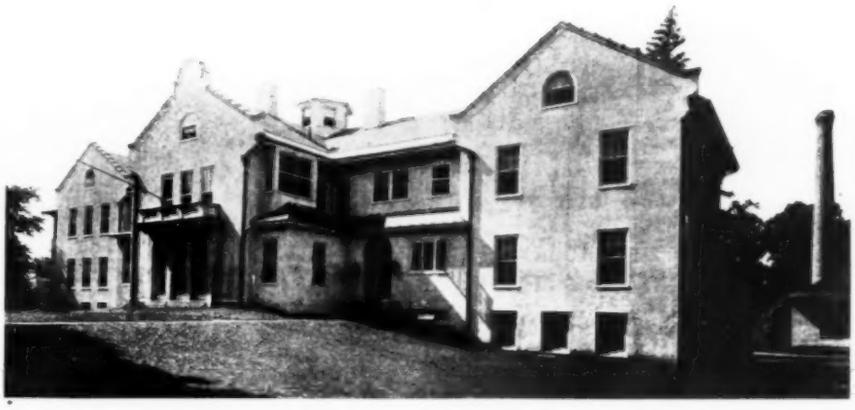

Fig. 8. The Choate Hospital as it now appears after additions and final remodeling.

quests and generous donations, so that in 1916 the much-needed expansion was authorized.

To plan for the growing needs of the present and the future and to preserve and bring into harmony as much of the old building as possible with the new was the problem now to be worked out. The greatest needs, were, first, better operating facilities; second, more private rooms; and third, a maternity department worthy of the name.

But few changes were necessary in the original building, as will be noted on plans (Figs. 9, 10, 11, 12). The kitchen was enlarged; the old nurses' dining room was made into cold storage and a serving room for the new dining room; the stairs were removed and the serving kitchens enlarged;

Fig. 9. Ground floor of the Choate Hospital in its present form. In this and the succeeding plans the added wing on the right is known as the Dr. John M. Harlow Surgery and the one on the left as the William B. Beggs Memorial.

During the eight years of successful management after the opening, friends of the hospital, seeing the splendid work being accomplished with the simple equipment, came to the rescue with be-

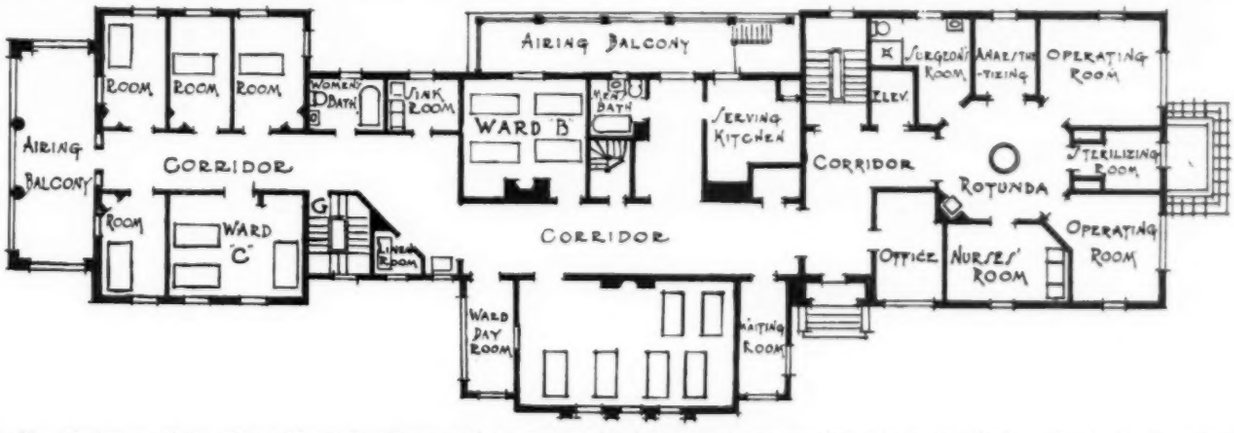

Fig. 10. First floor of the Choate Hospital. The operating rooms and other rooms in the surgical suite center about a rotunda, in the center of which is a surgeons' scrub-up fountain.

the old operating suite was turned into a maternity delivery room and bath room, and one of the private rooms taken as a creche.

The new portions are planned to meet the deficiency of the old building and the growing needs of the community. A new main entrance and office are created, and a new operating department is provided.

The operating department consists of two north-lighted operating rooms, a sterilizing room, an anesthetizing room, a nurses' work room, and a surgeons' locker and dressing room. All these rooms are grouped around an octagonal rotunda, in the center of which is a triple scrub-up fountain, designed not only as a necessary utility, but also as an architectural feature of the department. The base of the fountain is of mosaic; the bowl is porcelain enameled, 40 inches in diameter; the water is controlled by the latest type of elbow valves; and the whole is surmounted by a utility shelf of opal glass. The large size of the rotunda leaves ample room on all sides for the wheel stretcher to pass. The floor of this department is of terrazzo and the walls are enameled hard plaster. Large north windows, extending above the ceiling, give the best of daylight, while four special artificial lights illuminate the operating rooms at night.

The ambulance entrance is below the surgical department and adjoins the laboratory, the x-ray, and the autopsy rooms. A small isolating suite, with special plumbing, is provided, as well as drug and storage rooms.

In the basement of the medical wing are located the nurses' dining room, the lecture and ladies' aid rooms. An automatic electric elevator connects all stories. The first story of the medical and the second story of both the surgical and medical wings are planned for private patients, mostly single rooms being planned. At the south end of the building airing balconies are provided.

Sink rooms, toilets, baths, and linen rooms are arranged for the efficient carrying out of modern hospital service. The floors of all wards, rooms, and corridors are covered with linoleum; the doors are without panels; and all detail of finish is of plain, simple construction.

For the mechanical plant, the old stable was

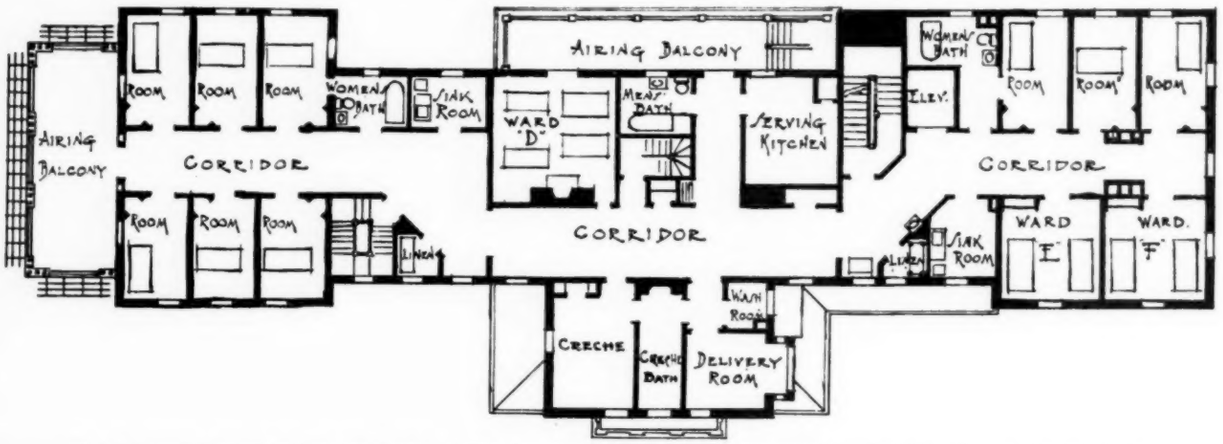

Fig 11. Second floor of the Choate Hospital. The former operating room (in the center) has been taken as a delivery room.

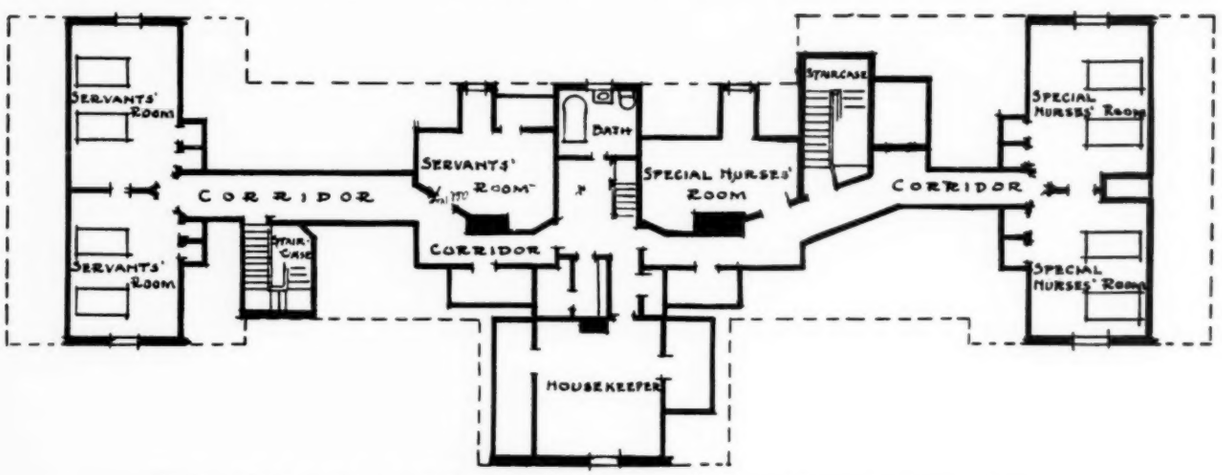

Fig. 12. Attic floor of the Choate Hospital, devoted to housekeeper's, special nurses' and servants' rooms.

utilized, affording plenty of room for the heating and laundry equipment.

These remodeled buildings, with the nurses' residence (also a donation) on the same site, make a complete thirty-three-bed hospital, and show the efficiency and enterprise of the president of the hospital, Mr. Elmer E. Silver, to whom great credit is due.

ECONOMY IN THE MANAGEMENT OF SMALL HOSPITALS*

Reliable and Practical Methods for the Small Hospital—Principles of Efficiency in Various Departments—Methods of Increasing Hospital Incomes—Efficiency the Road to Economy

By WALTER MORRITT, Ph. D., Formerly Superintendent of Beth-El Hospital, Colorado Springs, Colo.

THREE years of war prices have made most hospital superintendents familiar with specific substitutes for standard supplies and specific ways in which to cut expenses. State conferences of hospital workers and our excellent hospital magazines have likewise instructed us as to advisable substitutes and economies.

I shall deal, therefore, not with a list of items of saving, but with the general principles of efficiency which make for economy. With a knowledge of efficient general methods, the specific applications can easily be made. Sufficient examples will be given to illustrate the principles and stimulate discussion.

This paper will deal only with the problems of the small hospital (under 100 beds), and much that is said will not apply to large institutions. I am speaking for the hospital with no endowment and little or no income save that from the patients—the hospital dependent on philanthropic individuals for help, and called upon to do its fair share of the charity work of the community, say, one-fourth of its total volume of business—the hospital which has to meet more or less keen competition from other hospitals—the hospital without a staff, open to all reputable doctors, the typical western hospital.

I. PRINCIPLES OF ECONOMY FOR THE ENTIRE HOSPITAL

Economy is no more required now than formerly; waste is waste at any time, and whether it be of supplies or energy. The keynote of this paper is *efficiency*. Get efficiency and you have economy. A few general suggestions may be of service.

1. In these times of stress it is poor economy to cut down your working force too much. An extra head nurse, for instance, will often more than save her salary through wise supervision and coordination of the work of pupil and special nurses and the careful conservation of floor supplies.

2. Raise salaries, rather than cut them, and thus stimulate your workers to better efforts and save the inevitable loss following change of workers.

Do not raise salaries on general principles, but because the particular worker is worth the particular raise. It is useless to raise the pay of an inefficient worker. Get rid of such workers and pay more to a better grade. Often, however, a steady plodder is more valuable than the brilliant but erratic worker.

3. Strive for a loyal, harmonious staff of workers on whom you can throw responsibility—and then throw it. Do not try to run each department yourself; know what is going on, but do not interfere too much.

4. Secure a corps of workers interested in the success of the whole hospital, not simply in their own departments—interested in securing the friendship of the general public for the hospital. "The public be damned" policy should find no shadow of expression in any hospital worker's creed. Rather, it should be: We please to serve and serve to please.

5. Encourage your heads of departments to save. What each department secures from the sale of waste, such as old rubber, paper, rags, bottles, barrels, junk, scrap, garbage, etc., should be given to that department to be spent for little extras or improvements as the head of that department may see fit. Much valuable equipment may thus be added to the hospital from this source and much good feeling engendered.

6. Occasional meetings of the heads of departments for discussion of problems are invaluable, and also meetings, at longer intervals, of your entire working force.

7. In a large hospital, printed notices and pleas for economy are necessary, but in a small one, personal appeal is much better, given to groups of workers or to individuals.

II. PRINCIPLES OF ECONOMY APPLIED TO VARIOUS DEPARTMENTS

1. *The Business Office.*—Have a complete and detailed system of bookkeeping regardless of the

*Read before the American Hospital Association at its nineteenth annual session, Cleveland, O., September 12, 1917.

cost. An inexperienced but intelligent bookkeeper can soon be taught by an expert accountant, and much money will be saved. A pleasing personality in the front office is a valuable financial asset; affability is an element of success in any business office. When possible, the bookkeeper should present all bills to patients. Do not trust to head nurses or pupil nurses. Above all things, no not send bills in on patients' trays. You will often thus spoil a patient's appetite and fail of a prompt collection. There should be absolute and cordial cooperation between the business office, the superintendent of nurses, and the head nurses on the floors. The office should be notified promptly when patients are to leave the hospital and all extra charges reported. It is hard to collect charges for extras after a patient has paid his bill and left the hospital.

2. *The Kitchen, Housekeeping, and Dietetic Departments.*—These departments are in some respects the most difficult and most important in the entire hospital. In these departments the chance for waste is tremendous. Therefore have the best manager you can get; then let her do her own planning and buying. This will give the best results possible. In general, do not buy too far ahead—now. Use all really practical labor-saving appliances. The cafeteria plan for the nurses' dining room is economical. Encourage your help, as far as possible, to live outside the building. Let the departments have the use of money from the sale of garbage, etc., for the purchase of anything needed in the kitchen or diet kitchens. See to it that night nurses do not have too free access to refrigerators and supply closets.

3. *The Operating Rooms.*—Here, again, successful economy depends on your supervising nurse. Pay well and get the best. If possible, require surgeons to furnish their own gloves and sutures. Ether, too, should be supplied by the anesthetist. We have not yet been able to bring this about in our part of the country for the lack of cooperation among the hospitals. We have no state organization. The fee for major operations should vary with the length of the operation—say, $10 for the first hour and $5 for each additional hour or fraction thereof. This, too, is an ideal with us, but obtains in some parts of the country. Gauze from clean cases is washed, boiled, and resterilized by us. Catgut from clean cases is saved, sorted, and boiled for half an hour in absolute alcohol, then used for septic cases. All rubber gloves are patched and used on the floors for dressing. Old rubber gloves are used instead of buying rubber dam. Soap and water is used for washing operating room furniture instead of lysol, alcohol, or carbolic acid. Fifty percent alcohol is used for antiseptic purposes instead of 75 percent or 95 percent. Solutions such as lysol, alcohol, or any other antiseptics are saved and reused. Sterile packing is made from bandages. Cotton pads are made thick in the center where needed and thinner at the ends, thereby saving much cotton. Oakum pads are used on the floors, made from oakum, newspapers, cotton, and gauze. These save much linen.

4. *Floors and Wards.*—Here your superintendent of nurses and your head floor nurse hold the key to the situation. Patients' charts of various kinds can be printed on both sides of the paper to good advantage. Your printing bill is reduced and your charts to be stored away are greatly reduced in bulk. Use a limited number of third-year nurses for special duty. This usually suits the patient, because it saves him expense, and the financial return to the hospital is clear profit. Guard, however, against crippling the floor work or using inexperienced nurses in critical cases. Teach nurses the cost of supplies used. Require accurate record of supplies and drugs used on the floors. Watch special nurses carefully in their use of linens, towels, foods, and other supplies. Keep linen closets locked and issue only on requisition. See that accurate charges for all extras are sent promptly to the business office. Special nurses are apt to be careless in this respect. Hold the night supervisor responsible for extinguishing all unnecessary electric lights, gas plates, and electric pads and heaters. Much electric current is needlessly burned in many hospitals.

5. *Drug Room and Laboratories.*—Do not trust to an intern for this work. Have a druggist and pathologist. If he has a good working knowledge of chemistry, so much the better. Such a man will make the drug room and laboratory sources of profit instead of loss, as is too often the case. The same thing applies to the x-ray department. Your druggist should make frequent visits to the floors, examine the floor supply of drugs, and see that the proper charges are being made and proper economy observed. Let no small charge escape. The man I have in mind not only makes up many economical compounds and formulas, thus saving much money, but also makes all library paste, and red and black ink, saving us 75 percent on these items, which in one year means a considerable saving. The ink bill in the average hospital is a big one. All pathological and x-ray work should be done by a member of the hospital force. This saves giving 50 percent of your fees to an outsider and gives your patronizing doctors more efficient and satisfactory service.

6. *The Power House.*—As elsewhere, the best is the cheapest. A good engineer who has the inter-

est of the whole institution at heart not only will run the boiler plant economically and save much coal and steam, but will look after all ordinary repairs to hospital plumbing and steam-fitting and keep the laundry machinery in good shape. He will also make many little appliances called for by doctors and nurses for special cases. He will save much money annually in repair bills, and by making the apparatus just mentioned he will contribute greatly to the satisfaction of doctors, who are always pleased when favors of this kind are done for them. Special service always pleases a doctor. Do not save on electric power to run your elevator at the expense of tired nurses. Let them use the elevator all they want. Your engineer can, however, help decrease the number and time of lights burned. This past summer our engineer looked after and cultivated nearly an acre of vegetables, from which $250 worth of fresh garden truck will be harvested.

7. *Laundry and Linen Room.*—These two can be discussed together and should work in the closest cooperation to secure best results. In a small hospital it is not always practicable to count the linens as they enter and leave the laundry, but where this is done without employing another worker it certainly pays. It is well to let your nurses know how many pieces are being used daily and weekly. It exercises a check on their requisitions. All approved and standard labor-saving machinery should be installed in the laundry, even if money has to be borrowed to do it. Often good second-hand machinery can be obtained at small cost. At the last hospital where I served we secured for $1,500, installed, what would have cost $4,000 new. A skilled head laundress will save supplies, and a good superintendent of nurses will see to it that aprons, etc., are so made that they will not need hand ironing. She will also see to it that nurses are limited as to the quantity of both personal and hospital laundry they may send in. Do not house or feed your laundry employees.

III. METHODS OF INCREASING HOSPITAL INCOME

Getting something for nothing is good economy. Appeal to the farmers and church organizations for fresh and canned fruit and vegetables. Appeal to the women's and church organizations of your patronizing territory for towels and linens of all kinds. It is not difficult to secure annually several thousand dollars' worth of such supplies with the right appeal and on the strength of the charity work you perform. The sole cost to the hospital need be only the freight and cartage and cost of glass fruit jars, which should be paid by the hospital and the jars returned to the farmers when emptied, for refilling the following year. Raise your rates. Most hospitals are giving service at less than cost. Now is a good time to raise, if you have not already done so. The public expects it. "Everybody is doing it." Raise the price for board of special nurses. Too little is usually charged. Ten dollars a week would be a fair charge in most small hospitals.

CONCLUSION

I end as I began: Efficiency is the road to economy. A hospital conducted on the general principles here outlined will get value received for money expended, give full value for money received, meet its bills, please and serve the public well, and weather the present financial storms.

Of course, in addition to all that has been said, the hospital superintendent should also have the backing of a strong board of influential and practical citizens of both sexes who will give him a free hand and back him up in his policies.

My purpose in this paper has been to appeal for a raising of standards of service in these trying times rather than a letting down, believing that giving and getting the very best is the truest economy.

I hope I have said that which shall stimulate a healthy and profitable discussion.

Be Part of Your Local Red Cross

Help your community with its Red Cross work; be on the central committee if they ask you. Just now, when this whole country is full of the spirit of helpfulness, do your share. It is certain that the men and women of your city will appreciate the help your experience can give them in the classes on nursing and first aid, in the purchasing of supplies, and in the efficiency you can help to produce in their work. Your hospital and the people of your city will be drawn closer together by your help and the spirit in which you give it.

About Saving Soap

All cake soaps should be bought in quantity and laid away on the top shelves to dry out for some time before they are used. Oval cakes of soap waste less than those having square corners. If your bill for white cake soap seems more than necessary, watch the requisitions, see if your supervisors know if cakes are left to melt in wash-basins, or thrown into the hopper with wash-water, and whether they know if the partially used cakes are conserved for further use. If your bill for green soap seems out of proportion, look around and find how much is leaking out of the soap containers, how much is used for shampoos, and how much is going into the scrub pails, and if accurate measurement is used in making solutions.

All ceremonies are in themselves very silly things; but yet a man of the world should know them. They are the outworks of manners and decency, which would be too often broken in upon if it were not for that defense, which keeps the enemy at a proper distance—Chesterfield.

SARANAC LAKE GENERAL HOSPITAL, SARANAC LAKE, N. Y.

A Hospital Designed to Meet Present Needs and Permit Enlargement in the Future—First Unit Arrangement

By HARRY LESLIE WALKER, Architect, New York

THIS hospital was made possible for the village of Saranac Lake through the generosity of two persons who came to this place in the Adirondacks in their search for relief from incipient tuberculosis. While there they grew to realize the deplorable lack of facilities for caring for those suffering from diseases other than tuberculosis, and as a result they furnished the funds for the erection of this building.

The general plan adopted as being best suited to

Fig. 1. Saranac Lake General Hospital, Saranac Lake, N. Y.

the orientation of the site selected and to the inevitable problem of future enlargement to provide for the growing needs of the community consists of a two-story central portion containing the administration facilities and the operating suite, with nurses' rooms above, and a one-story wing on each end built at an angle of 30 degrees with the longitudinal axis of the central building, these wings containing the patients' rooms. At the present time only the right wing has been built and the ward at the end has been divided so as to provide rooms for patients of both sexes.

At the rear of the right end of the building was built another small wing, containing two single bed rooms, a room for a nurse, bath room, and private porch, all served by an individual exterior entrance and separated from the main building by means of doors at each end of a short passageway. This rear wing was originally planned for two possible purposes; that is, for use either as an isolation ward or as a separate set of rooms for a patient who might desire rather unusual accommodations distinctly separated from the remainder of the building. After the main building was completed, however, another friend of the hospital furnished the funds for the erection of a small isolation building, and so this rear wing has always been used for general patients.

The present capacity of the building is twelve beds, and when the left wing is constructed the capacity will become twenty-two beds.

In the first story of the central portion are arranged the reception room, superintendent's office, linen room, the staff dining room together with the serving pantry, store pantry, and main kitchen, with the operating suite in the rear. In the superintendent's office are a lavatory and large cases for medicines and supplies, while the main kitchen and serving pantry are provided with necessary plumbing fixtures, cases for dishes, range, refrigerator, etc. The operating suite consists of the surgeon's lavatory, fitted with lavatories, toilet, and shower bath; the etherizing room, the sterilizing room, nurses' lavatory, and

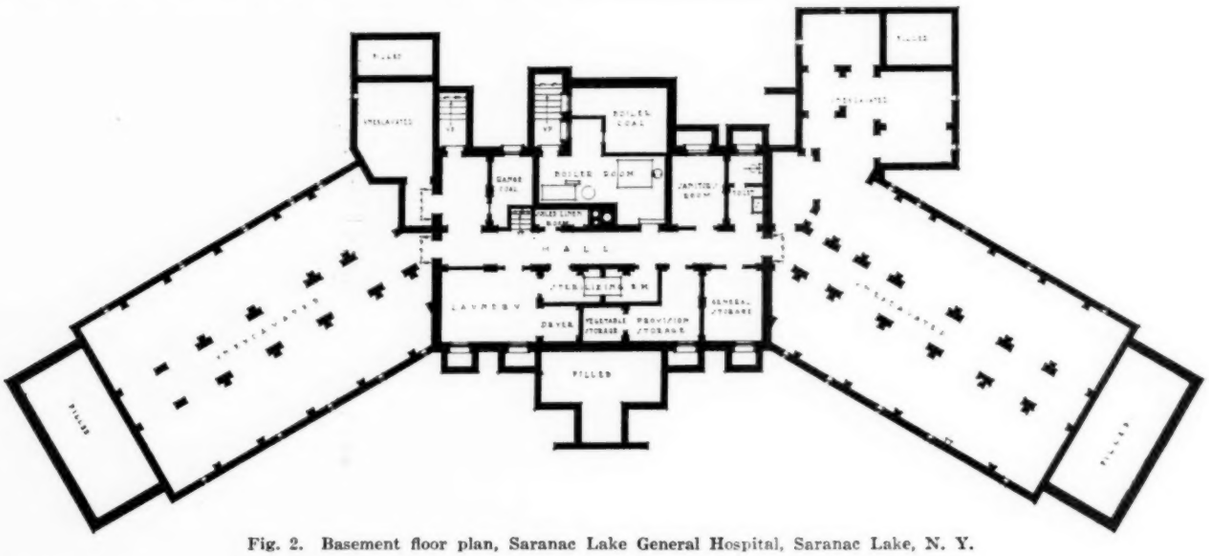

Fig. 2. Basement floor plan, Saranac Lake General Hospital, Saranac Lake, N. Y.

the operating room, with supply closet. The operating room is lighted by means of large fixed sash on the north side and a skylight in the ceiling, surrounded by a row of electric lights behind the glass of the ceiling light.

In the right wing of the building are arranged four single bed rooms and two three-bed wards, with wide central corridor extending through to the large porch across the end. Here are also found a general bath room, two general toilets, the nurses' utility room fitted with lavatory, laundry tray, sterilizing slop sink, and the necessary shelving and racks, and the diet kitchen equipped with sinks, gas range, and steam table, refrigerator, and ample cases for dishes. It is intended that the left wing shall be a duplicate of the right wing, thus providing as large a number of beds as can be properly cared for by the administration facilities furnished in the central portion of the building.

In the second story of the two-story part are provided accommodations for six nurses and for three maids, with a bath room for each group, and a large store room for storage of surplus linen. In case of necessity it is always possible to use these second-story rooms for convalescent patients, if the nurses can be provided for outside the main building. The basement extends only under the central portion of the building, the ground being left unexcavated under the patients' wing. In the basement are the boiler and fuel rooms, laundry, room for large sterilizer and disinfector, janitor's room with toilet, and large storage rooms.

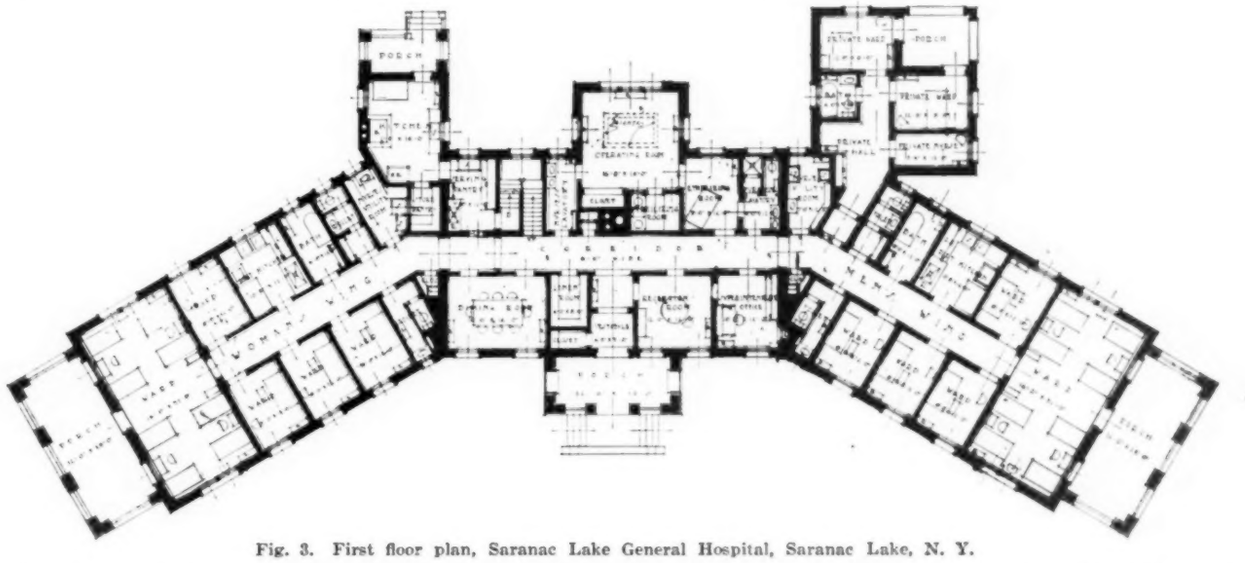

Fig. 3. First floor plan, Saranac Lake General Hospital, Saranac Lake, N. Y.

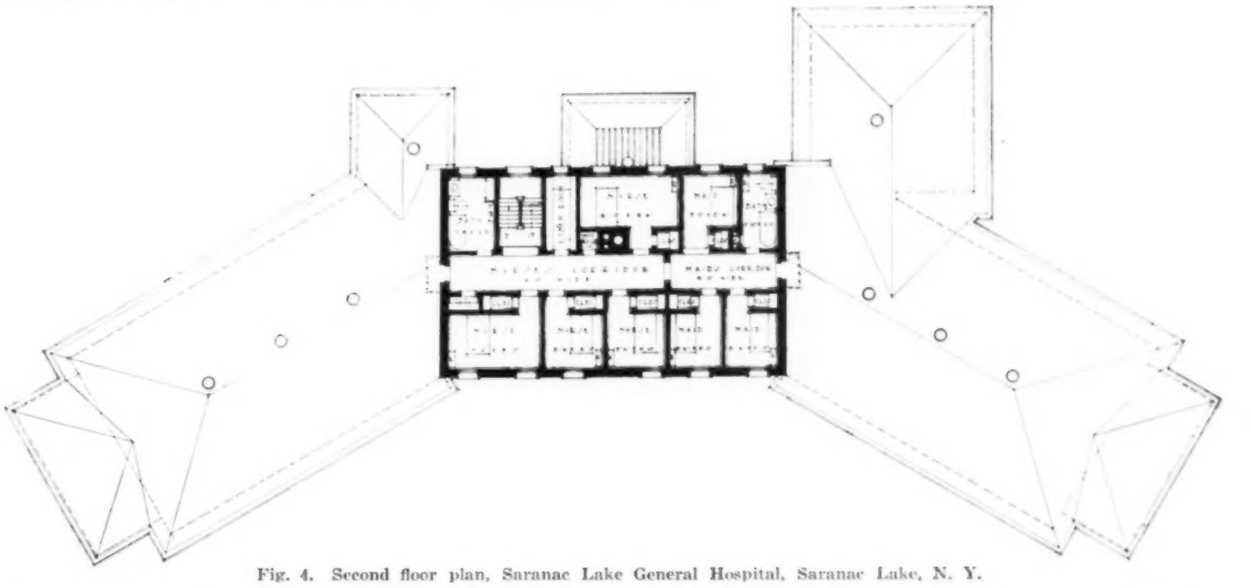

Fig. 4. Second floor plan, Saranac Lake General Hospital, Saranac Lake, N. Y.

The building is built with terra cotta block exterior walls veneered with rough brick of a soft red color, stone sills, porches and cornice work of wood, painted white, and slate roof. The interior construction is of frame, with wood floors, except in the operating suite, diet kitchens, and all baths,

toilet rooms and utility rooms, where there are floors and wainscoting of white tile. Low-pressure steam is used for heating, and there is a small high-pressure boiler furnishing steam for heating

Fig. 5. Operating room, Saranac Lake General Hospital, Saranac Lake, N. Y. Note skylight.

the domestic hot water and to the operating suite, diet kitchens, and utility rooms, for sterilizing and warming purposes.

The central portion and right wing of the building were erected in 1912 and cost, including the architect's fees, approximately $29,300, which is about 23.5 cents a cubic foot.

THE SANATORIUM BLANKET PROBLEM

Importance of Blankets—Best Size and Weight—Method of Sterilizing

BY H. M. SCHELLER, Superintendent Sunny View Sanatorium, Winnebago, Wis.

Blankets form a very important and indispensable part of the sanatorium bed outfit and perhaps require the greatest financial outlay. Therefore, the care of the supply of blankets in a sanatorium is a problem of great economic as well as sanitary importance.

The routine procedure in the care of tuberculous patients consists of keeping the patients in the open air a maximum amount of time, night and day, rain or shine the year round; for, as Ruskin says, "There is really no such thing as bad weather—only different kinds of good weather, for sunshine is delicious, rain is refreshing, wind braces up, and snow is exhilarating."

When the patient's bed is in a room, the windows are wide open; when on porches, the bed-coverings furnish most of the protection from the weather, except that afforded by the roof and possibly wind or rain shields.

If a patient is allowed to suffer from cold or exposure when taking the cure at a sanatorium, his health gains will be very slight. This physical discomfort may be avoided by an abundant supply of serviceable blankets, a foot-warmer, and various kinds of caps which protect the head and neck.

Single wool blankets about 66 inches wide by 78 inches long, weighing about 5 pounds, are very satisfactory. When blankets are so large that they require folding several times, beds are much less easily made and kept fit for inspection than where single blankets are used. This fact, as well as the frequent need of removing blankets when soiled by hemorrhage, sputum, and other excreta, makes it very undesirable to use blankets which on account of their size have one or more folds.

About five single wool blankets for the use of each patient is a number ample for all weather conditions, providing the patient has a good heavy horse blanket for a top covering to protect the bed from rain and snow. In our effort to keep patients comfortable in all kinds of weather, let us not lose sight of the fact that too heavy coverings prevent sleep and produce a tired feeling next morning. It is a simple matter to discard one or more on warmer days or nights by folding the unused blankets neatly and placing them in the space between the ends of the bed and the mattress.

In the smaller sanatorium where large steam sterilizers for bedding are not installed, we follow this method: after a patient is discharged, or at other times when rooms and blankets require cleaning, the room and contents are put in fumigation for about twelve hours; next it is aired for several hours, and the floors, walls, windows, woodwork, furniture, and beds washed with a disinfectant solution with soap and water. If on inspection the blankets are found stained, the spots are thoroughly washed with Ivory soap, water, and a 5-percent carbolic solution. Then the blankets are taken down to the fumigating room, where they are left to air and dry until they can be sent to the laundry. Blankets are never reused without being carefully laundered.

Nurses are instructed, when handling contaminated laundry or bedding, to protect themselves by wearing a face mask and a large surgical gown used only for that purpose. An easy way to mark blankets is by taking adhesive plaster about 4 inches long and ¾ inch wide. The back end of a safety pin is placed in the middle of this adhesive strip, which is folded over safety pin, making a tag 2 inches long. The number of the bed is printed on one side and patient's name on other side of this tag with indelible ink. Then the tag is pinned to the corner of the blanket.

Woolen blankets are used all the year round by patients. The discarded blankets are stored in large cedar chests.

Double-fold cotton blankets are used during the winter months as sheets by the patients, and these are sent to the laundry at intervals.

Perspective

Get out of the hospital once in a while, and look at the building and its contents and the people in it, without considering your own personality as a part of it. You will be surprised to see how quickly the little things will look like little things, the petty jealousies and annoyances will shrivel up, and the big things will stand out in sharp contrast. Try to get the vision of your hospital as a whole, the work it is trying to do, what it means to your community, and many of the problems that have worried you will become just part of the day's work, to be finished and laid aside when the day is done.

A wounded soldier in a crowded omnibus rose to give up his seat to a lady.

"No, thank you," she replied, "I should not take your seat if you have been wounded."

"Madame," he answered, "I have been wounded three times, and would be wounded a fourth if you didn't take it."

THE CHILDREN'S CLEARING BUREAU OF NEW YORK

New York City's Latest and Most Ambitious Effort for the Conservation of the Best in Childhood

By FRANK C. BROOKE, Secretary to the Second Deputy Commissioner of Public Charities, City of New York

THE Department of Public Charities of the City of New York annually accepts as proper public charges thousands of destitute, dependent, and neglected children. These children are committed to child-caring institutions under private management and control. A most careful investigation of each individual case by the Bureau of Social Investigation precedes each commitment, but each year the city of New York pays these institutions for the care of its children a sum in excess of three million dollars.

During the administrations previous to that of Mayor John Purroy Mitchel there was developed an exhaustive system of investigation designed to prevent the acceptance of children who are not public charges. On the other hand, however, until the present administration no methods were desired involving the larger problems of the future care of the dependent child; the child was simply passed along through the commitment process to some private charitable institution or society.

Fig. 1. The new Children's Clearing Bureau of the City of New York is housed in this building, formerly the Messiah Home.

The city of New York seems to have done absolutely nothing to ascertain the dependent child's mental or physical condition before sending him to an institution, and until recently made no effort to find out which institutions were best adapted or equipped to minister to the needs of the individual child. As a rule a vacancy in the private child-caring institutions was the principal factor in the selection of the institution for the particular child.

When Hon. John A. Kingsbury became the commissioner of public charities he selected for his second deputy commissioner in charge of children's work Hon. William J. Doherty, who, as head of the Catholic Home Bureau, had for fifteen years been familiar with the haphazard method of the selection of institutions and knew of the hardship it worked, not alone upon the dependent child, but upon the private charitable institutions themselves. Appeals from the heads of institutions for the transfer of children assigned to their care strongly impressed him with the injustice of this haphazard method of assignment of children. For instance:

William W., a cripple from infancy, was in a large institution unable to give him proper care, or to furnish him entertainment or schooling because of his crippled condition. He was transferred to an institution where modern methods of orthopedic treatment are provided, and the boy has been greatly benefited thereby.

Minnie S., a mental defective, for many years in an ordinary child-caring institution, had never received a mental examination. She was deprived of proper schooling and had become a drudge for the institution and a butt for the ridicule of the other children. She was a repulsive sight, and many visiting mothers told tales of the terror of their children at being obliged to associate daily with this uncouth object. Minnie was given a mental examination and transferred to a proper institution.

From the beginning of his term Deputy Commissioner Doherty cherished a plan to establish a clearing house for all newly admitted children, where they might receive all remedial measures which their condition demanded, and where each child might be studied before he was assigned to

an institution, so that there would be no more misfits remaining year after year in institutions without hope of improvement.

In 1916 he established a clinic in connection with the Children's Home Bureau, the boarding-out agency of the department, and all children referred to it by the Bureau of Social Investigations were given a thorough physical examination before they were sent to board in private families. Since October, 1916, about one thousand children have been so examined. Knowledge of the needs of the individual child made it possible to select the type of home best adapted to minister to those needs.

The results of the physical examinations showed many children needing immediate medical and surgical attention; indeed, for a large number of these children hospital care had to be provided. In many cases it was necessary to keep the children under observation for varying periods before it was possible to send them to the carefully selected boarding homes. A temporary shelter had to be provided for these children. The results accomplished in the clinic of the Children's Home Bureau demonstrated to Commissioner Kingsbury and to Deputy Commissioner Doherty the utility of having all dependents made physically fit as the first step in rendering them fit to take their places in life.

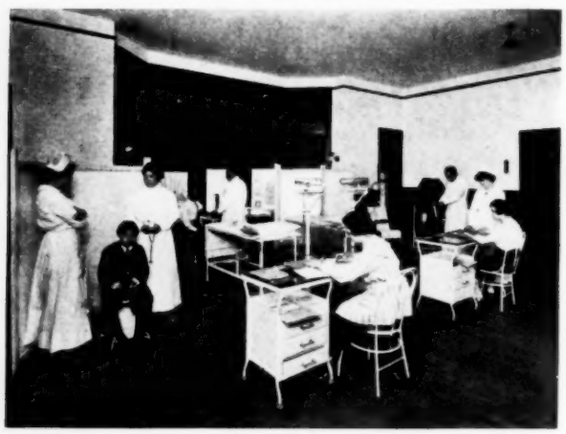

Fig. 2. As a first step toward adjusting each child to life, he is given a thorough medical examination and such treatment as is demanded by his physical condition.

Fortunately, the plant for such a work was easily found. The authorities of Messiah Home had decided to abandon the care of children and to sell their property. They had a splendidly built and equipped institution, which they agreed to lease to the city of New York for a nominal sum. This building is a modern fireproof structure erected about eight years ago at a cost of $600,000. It is finished artistically and is provided with every modern accessory for a child-caring institution.

The Children's Clearing Bureau is the city's latest and most ambitious effort for the conservation of the best in childhood. It is unique; it is said that there are no similar institutions in the world. To this clearing bureau will be sent each year two thousand children for observation and examination, each child receiving treatment for his physical needs. When he has been cleared of physical defects and his mental status established, he will be sent to an institution which the department knows is best equipped and adapted to minister to his needs.

When a child is admitted to the clearing bureau he is given a bath, clean clothing, and a medical examination, and then is told to go out and play—for which there are ample grounds and equipment.

Fig. 3. After receiving a bath, clean clothing, and a medical examination, the children are sent out to play.

Willie Strovinsky's letter (reproduced *verbatim et literatim*) to his father describes his impressions:

"Dear Father:

"I am having a good time over here. We salute the flag every morning. We have swings. We have many good things which we could play with. I have a coat and I have a new suit, we wear it every Sunday. We have a pair of skates we are going to skate on Saturday. I am going to school to. I feel very happy I say my prayer every night I now it well. I take a bath, and at night we say stories. we have ice cream every Sunday. We sing and we have a piano. We wash our teeth. I dress myself every morning we do our beds. I hope you are strong and health and wealth. I shall never forget about you and mothers sister, and your brother and Annie and John and the little baby. We play bace ball once a while. We have books to read I got a new pair of shoes. We get up at six oclock. We get good things to eat. at night go to sleep at 8 oclock.

"Your loving son

"WILLIE."

The second day the child enters school. After his adjustment to his surroundings is complete he goes to the clinics to have his defects corrected. In the mental clinic he is observed by a psychologist trained in the most advanced methods. Two

alienists complete the study of the child's mental status. In the clinic for speech defects the child is treated for his lack of proper articulation. The equipment of the dental clinic is the most complete to be obtained. An x-ray equipment and modern appliances for anesthesia make possible the very important work of oral surgery, and particularly effective root canal treatment.

A careful orthopedic examination is given each child, and corrective devices are supplied. In fact, the equipment in all clinics is complete and the personnel of each service is so well selected that a child who has passed through the clearing bureau is as near perfect physically as he may become within a reasonable length of time, and has been so carefully observed that in every case he will reach the institution best fitted to care for him.

Fig. 4. The equipment of the dental clinic is the most complete to be obtained.

The Department of Public Charities of the City of New York may now be said to be the leader in modern communal child-care work. The successful work which is now carried on in the Children's Clearing Bureau not only will serve to place the city of New York in the front rank of enlightened communities which are working constructively to advance the best interests of the dependent child, but will act as a stimulus to other cities throughout the country.

Moreover, the city of New York has purposely refrained from embarking on a onesided child-caring philosophy, New York City having set an example of utilizing every social agency and social method of child care that might advance the happiness of dependent childhood.

The Swedish Hospital, of Minneapolis, on January 4, celebrated the 20th anniversary of its founding. The original capacity of the hospital was 25 beds, but this was increased in 1914 to 160 beds. Last year 4500 patients were cared for. A training school is maintained and nearly 200 nurses have been graduated.

Standardization of Surgical Dressings as a War-Time Economy

In this time of great stress, when perhaps each piece of wasted gauze or cotton may mean that some suffering human being is deprived of just that much, we want to make another plea for doing away with all unnecessary special dressings. The supply cupboards in hundreds of operating rooms bear some of the following legends:

Dr. A's sponges.
Dr. B's 4½-inch gauze roll.
Dr. C's special dressings.
Dr. D's hernia bandage.

Oftentimes, after a rushing day and after nurses are through the cleaning and sterilizing and innumerable other things, someone discovers that there are none of Dr. C's special dressings for his operation tomorrow, so someone whose brains and hands are already tired past endurance must stay on to make some fanciful and unnecessary sponge or packing.

We know that all operative measures may be successfully carried out with the use of simple standardized dressings, and the time has come to say that we do not believe it is any more right to use labor or material in making unnecessary dressings than it is to waste flour, lard, or sugar.

One of our large city hospitals which has done much within the last few years to show good methods of economy uses, for instance, three large foot-pressure steel drums in each operating room, and from the contents of these three drums all operations in this room are supplied. No cotton is present or brought in for use except the small amount used on the small applicators. The first drum holds the ordinary folded 4-inch square sponges; the second, laparotomy towels or sponges, all of a uniform size, about 8 by 12 inches; and the third, what is known as 4 gauze, and this time-honored dressing may be used for almost anything. Folded as it is made, it makes an excellent 4 by 4 sponge; unfolded once and laid smooth side down, it is ideal in size and thickness to cover an abdominal incision or to make a perineal dressing; unfolded once again, it makes a good covering for a head case or wounds of the extremities, or it will conveniently wrap around a stump; and, if it is made carefully with turned-in ends, may be safely used on long forceps in the abdominal cavity.

There does not seem to be any actual necessary deviation from these simple dressings, except the 4-inch 5-yard roll, which may also serve many purposes—for abdominal packing in hemorrhagic or suppurative cases, for bandaging trephine and head wounds or wounds of the extremities, for hernia, and for breast amputations.

The narrow packings, the cotton sponges for eye work, and the small easily made puff sponge for tonsil work, must of course be especially made. In hospitals which are equipped for the washing and resterilization of used gauze it is found that the 4-gauze, which forms the bulk of dressings to be washed, the large size laparotomy towels, and the 4-inch 5-yard roll are large enough to come out of the laundry with comparatively little waste.

Dr. Leo J. Dretzka, superintendent of the City Receiving Hospital, Detroit, Mich., was called to Philadelphia in January to become a member of the brain surgery section of the United States Army medical corps. Dr. Dretzka has been in charge of the Detroit institution since it was established in 1915.

AN ECONOMICAL ISOLATION HOSPITAL

Isolation Hospital of Guardian Angel Orphanage, Peoria, Ill.—A Satisfactory Solution of the Isolation Problem Where Low Cost Is Imperative

By HAMILTON B. DOX, Architect, Peoria, Ill.

GUARDIAN Angel Orphanage stands on the edge of a broad plateau, about a mile beyond the western limits of the city of Peoria, Ill., overlooking the beautiful valley of the Kickapoo. It is for the use of and is supported by the diocese of Peoria, which embraces all northern central Illinois from Indiana to the Mississippi, and includes within its boundaries more than a hundred thousand Catholics. The orphanage is in the hands of Franciscan nuns, whose mother house is in Peoria, and is, of course, under the direct jurisdiction of the bishop of the diocese, Rt. Rev. E. M. Dunne, D. D.

A few years ago Bishop Dunne moved the institution from Metamora, its original location, to its present site, after erecting a new and larger

Fig. 1. Guardian Angel Orphanage.

building for its accommodation. So rapid has been its growth that additional buildings had to be secured, among them an isolation hospital to take care of the occasional outbreaks of diphtheria and scarlet fever which, as the capacity of the existing establishment began to be taxed, became more and more of a problem for the medical staff to handle. As a consequence of this increasing difficulty, in the summer of 1916, Bishop Dunne commissioned me to prepare plans for a small isolation hospital, upon the lines suggested by the physicians in charge, Drs. John F. Sloan and Arthur Sprenger. The result is to be seen in the subject of this article.

The building, at this writing nearing completion, will be ready for occupancy some time in February, 1917. The general contract was let for $9,322. The normal capacity will be from 35 to 40 children, exclusive of the observation rooms described below, and in an emergency, 50 could be easily accommodated.

The first essential was to insure complete isolation, not only from the main building, but also isolation of one infection from another. The two diseases most to be dreaded, diphtheria and scarlet fever, were, in combination, perilous to the last degree. Yet they must be taken care of under one and the same roof. To do this, it was decided to divide the building into distinct

Fig. 2. Main floor plan, Guardian Angel Orphanage.

halves, separated by a solid masonry wall, without openings of any kind. Each half must then be made complete in itself, with its own kitchen, bath, toilets and laundries. At first it was proposed to erect a one-story flat-roofed building, but eventually the decision was reached to provide an attic which could be utilized in the im-

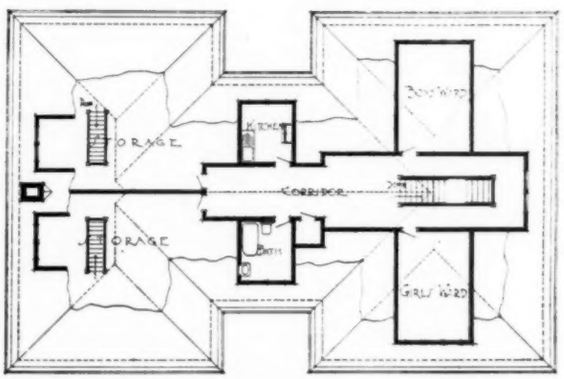

Fig. 3. Attic floor plan, Guardian Angel Orphanage.

probable but possible event of a third contagion, as for instance, measles, existing in the orphanage at the same time as diphtheria and scarlet fever. This third unit is arranged with a separate outside entrance of its own, shown in the center of the main facade, contains boys and girls' wards, bath and kitchen, and is lighted by broad dormers.

Still another provision was insisted upon by

the physicians, namely, rooms in which doubtful cases could be put under observation for a few days. Two of these rooms were therefore provided, each with a bath-room, sink, small electric heater and separate outside entrance.

The next point to be considered was the safe discharge of recovered patients and the avoidance of any possible danger of reinfection. By arranging a small disinfecting room, with an outer entrance, in connection with the bath, the following process was made practicable: The patient, immediately before being discharged, will be given a bath and his clothes at the same time be disinfected. The bath over, the patient will step at once into the disinfecting room, dress there, and pass directly out of the building.

The main floor plan, then, comprises two large units, separated by a division wall, besides the two observation rooms, each a separate small unit in itself. Each of the large units consists of a boys' ward and a girls' ward, each accommodating nine or ten beds. Between the wards are grouped the bath and disinfecting rooms, the boys' and girls' toilets and a small room for the physician, where it will be possible to perform slight operations, should occasion arise. From each ward a nurses' room opens.

At the rear, connecting with the wards, is a pantry, with large cupboards, which in turn opens into the kitchen. The pantry also contains the refrigerator, which is iced from the outside. The kitchen is equipped with sink, range, electric heater and cupboard.

From the kitchen a stairway runs up to a commodious storage space in the attic and down to the laundry in the basement. The laundry, one for each unit, has stationary trays and drying apparatus. Only that portion of the basement needed for the laundries and for the heating plant is excavated—another effort toward economy. Each laundry has an outside entrance and is as isolated as the units on the main floor.

In view of the necessity of maintaining an even temperature in any sort of hospital and considering the comparatively small size of the building, a hot-water heating system was decided upon and an Ideal sectional boiler, having a rated capacity of 3,700 square feet, was specified. Beside it a small hot-water supply boiler was installed to furnish hot water to all plumbing fixtures throughout the building.

A satisfactory floor plan having been sketched out, embodying the above-mentioned features, the architect turned his attention to the structural details of the building. Here the item of economy was paramount and governed the construction to a large extent. That being the case, ordinary construction alone was available. The outer walls are of medium burned hollow tile, with a facing of brick, costing $11 per thousand, laid in gray mortar. The brick are a dark red, with a slight but pleasing variation in hue. The interior division wall between the two halves of the building is of tile. All other partitions are frame. The question of flooring was next taken up. A non-absorbent, resilient, sanitary floor was imperative, and yet the question of cost was not to be ignored. After due consideration of samples, price-lists and previous installations, red "Korkstone" was finally selected. For the entire main floor a ½-inch-thick application of this material was required. As the attic unit was merely for emergencies, for economical reasons the "Korkstone" was dispensed with there and a ⅞-inch grain yellow pine floor substituted.

For the walls and ceilings, two coats of the best quality lead and oil paint were applied directly to the plaster, which had been given a hard, smooth finish. It is, in consequence, possible to wash walls, ceilings and floors with equal facility. The wood trim is yellow pine throughout, of the simplest and plainest profile, with a minimum of dust-catching moldings. The main roof is genuine certificate slate. The dormers are covered with 40-pound I. C. tin.

Another necessary feature is the septic tank, into which all sewage from the hospital flows, to be purified, before it mingles with the sewage from the main building. The plumbing is of excellent quality in all particulars.

On the whole, while it can lay no claim to architectural beauty, the building would seem to be a satisfactory solution of the problem presented where isolation is a necessity and cost must be pared down to the lowest point consistent with good, permanent building.

An orderly . . . very willing, but hopelessly incapable, makes the queerest blunders, and has a decided objection to being bossed by women! Part of his duty is to clean the operating room, and one day a surgeon asks for an appendix specimen which seems to have disappeared during the excitement of getting ready for the next operation.

"Did you do anything with that appendix when you were cleaning up, John?" asks the nurse in charge.

"No, ma'am, I've never touched an appendix all the time I've been here. I see dozens on the floor every day, and never touch them, ma'am, and I can get anyone in this town to speak for my honesty!"—Laura Hartwell, R. N., in American Journal of Nursing.

Humility is a virtue all preach, none practice; and yet everybody is content to hear.—John Selden.

OCCUPATIONS FOR OUT-PATIENTS AT THE MASSACHUSETTS GENERAL HOSPITAL

Coming Need of Remunerative Work for Invalided Soldiers—The Cement Shop of the Massachusetts General Hospital—A Cooking School for Men Worth Trying

By JOHN F. BRESNAHAN, M. D., Boston, Assistant Resident Physician, Superintendent of Out-Patient Department, Massachusetts General Hospital

THE present war has added fresh impetus to the movement for providing occupation for the incapacitated. Thousands of soldiers invalided home must work to support themselves. Great effort and much ingenuity are to be used in providing them with a livelihood. The subject of occupational therapy has long interested those in charge of chronic hospitals and institutions devoted to the care of insane. It has been of more or less interest to the administrators of general hospitals and to those interested in social service. The movement is in its infancy. It is a known fact that most men are happiest when occupied, and medical men of experience recognize a distinct relationship between suitable occupations and mental and physical health.

There are two stages in the care of the sick in general hospitals when occupational therapy has a distinctive value: (1) when a patient is confined to a ward and yet is able to busy himself without detriment; (2) when a patient discharged from the hospital is attending the out-patient department for convalescent treatment. For example, a man who is confined for nine weeks in a ward with a broken hip would be often much benefited if he could be given something to occupy his hands as well as his mind. An example of the second type of cases is one of a brakeman who loses an arm and is required to return to the out-patient department several times weekly for the dressing of a sluggish wound. This man may be, and often is, without work and yet he is the bread-earner of a family.

He is likely to suffer from the discouragement felt by all able-bodied men at the loss of an arm or a leg. This man, at first, at any rate, is apt to become downhearted because he is a cripple, but if he can be assisted through this period of depression by being given some form of employment suited to his physical condition, he is less likely to pity himself and is more likely to keep himself in good physical and mental trim.

For some four years we have been experimenting in the Massachusetts General Hospital with these two types of patients. Our efforts to provide ward patients with work have been confined to the orthopedic wards, where simple forms of basketry and rug-weaving have been tried. No great progress has been made because of the short stay of many patients and because the forms of employment along these lines are limited as to the sales of the products. In the case of the convalescent out-patients our efforts were more successful.

Following the lines laid down by Dr. Hall of Devereux Mansion, Marblehead, Mass., a pioneer in occupational therapy, we started a cement shop. This shop employed from four to ten men the year through, in charge of an instructor trained by Dr. Hall. Various articles were made of cement, reinforced with iron rods; garden benches, bird baths, sun dials, large bay tree jars. The flower jars were made in different styles and in different colors. Space in a down-town flower shop was leased and the articles placed on sale. Special sales were held at Christmas and Easter time. The articles were also on sale at the hospital. In addition to these means of disposal, a large mail-order business was built up by listing the names of known friends and benefactors of the hospital, and increasing the list as the cement ware proved its value.

In employing patients, some distinction was made between the handicapped and the incapacitated. Only the handicapped were given employment. The discrimination was necessary in order to limit the number of the employed to the resources of our plant. Thus, by this distinction, employment would be given to a man who had lost an arm or a leg or who had a badly contracted hand following sepsis; but a patient who was suffering from a heart disease or diabetes or epilepsy would not be accepted. When patients applied to the shop for work—and they were in most cases sent to apply by social service or allied agencies—they were made to understand that their work was temporary and that the time of employment was limited to a month. The men were paid at the rate of $1 a day and worked between the hours of 8:30 a. m. until 2 p. m., with an hour for luncheon. Each was made to understand that his employment was temporary because we wished him to hunt for a permanent job and that was why he stopped work at 2 p. m. The rest of the afternoon was supposed to be devoted to finding himself work which would be more remunerative.

The shop from the point of view of therapy was a distinct success. Many of the men employed came to us rather depressed in spirit and doubtful as to their ability to earn a living.

During the year 1915-16 thirty-six handicapped

men received employment for one month. No man was discharged, however, even at the expiration of one month, unless he had a new job in view. Among the varieties of occupations which the men undertook on leaving us are the following: shipping, street vending, running an elevator, packing, messenger and watchman's service, cement-mixing, carpentry, etc.

From a financial point of view the cement shop was not a brilliant success. Like any business, the results depend on the undivided efforts and the business acumen of the director. The first two years were spent in finding suitable designs by experiment, and in providing a method of curing the cement ware in water tanks to prevent cracking or breaking easily. In the last two years the profits have approached the expenditures, but there was still a deficit. During the Christmas season, it became evident from the sales that the demand for garden ware and flower pottery was rapidly decreasing, owing to the retrenchments made necessary by the war. By March, 1917, the volume of sales fell off so rapidly that it was deemed wise to close the shop rather than to run heavily into debt; therefore the stock was disposed of and the plant shut down. The directors of the cement shop derived considerable consolation, however, from the fact that every man employed by the hospital was placed in a self-supporting position elsewhere. This, of course, was made possible, in large measure, by the abnormal shortage of available laborers of all classes.

In time—two or three years, perhaps—the shop would likely have been a financial success, had the abnormal war conditions not intervened. To sum up, in the matter of dollars and cents our experimental results were negative; but it is by no means fair to judge in such terms the help given to the men or the fresh courage and impetus imparted to them.

The directors of the cement shop worked in close conjunction with the King's Chapel Bureau for the Handicapped. This bureau has a desk room, and representative on duty in the outpatient department. The bureau has done excellent work among the handicapped of Boston and vicinity. A large number of persons have been rescued from enforced poverty and placed on a self-supporting basis. One of their brilliant cases came to my notice some time ago. A man with a family of five children, who was a hard drinker and who had been assisted by the Associated Charities was referred to the King's Chapel Bureau for investigation, and, if possible, aid. His handicap consisted of the loss of his left leg above his knee, and one finger of the right hand. The man was studied from several angles, and the director of the bureau finally won his confidence and induced him to make a fresh start. The man's trade had been one allied to the working with wire. A temporary employment was obtained for him in a wirework shop, and he was taught to make wire lampshades. He was aided to set up a little bench in his home and was taught the rudiments and principles needed for a successful business, and the necessity for promptness, for careful work, and for pleasing his customers. In the last three years he has been very successful, and supports his family and educates his children. He has pride in himself and in his work, and has lost his craving for liquor.

There is an excellent opportunity for those interested in finding employment for handicapped workers in a development of a cooking school for men. The idea of the establishment of such a school occurred to me several months ago, and I investigated the field and the need for such a school. It seemed to me that there was a constant demand which could not be supplied for cooks in lumber camps, construction camps, fishing vessels, boarding houses, and night lunch wagons. The employment agencies inform us that men employed as cooks in such establishments are not trained, but start as scullions or dishwashers and manage to obtain in a more or less haphazard way a superficial knowledge concerning the cooking of food. Employment is steady and the wages are good, but in type, the men employed are unsteady and prone to the use of alcohol. There is no reason why a simple school could not be organized, which need consist only of a large room, a sink, two or three gas ranges, and a teaching staff. Teachers could be recruited by a call for volunteers with a knowledge of practical cookery. If a simple curriculum were evolved, and the classes were held each morning, the values of food and the principles of culinary cleanliness could be taught in a short time. A course of a month should be sufficient to train a man for the position as third cook, etc.; and if a man showed especial aptitude there is no reason why he should not be trained for a superior position. Men with wooden legs, artificial arms, deformities of a hand resulting from sepsis, or the many various handicaps, could manage very well to do simple kitchen work.

The directors of five employment bureaus, interviewed as to possibilities, say that there would be no difficulty in placing the graduates of such a school. The plan is at least worth trying.

A want of the habit of observing conditions and an inveterate habit of taking averages are each of them often equally misleading.—Florence Nightingale, "Notes on Nursing."

A SMALL HOSPITAL WITH UP-TO-DATE FEATURES

Bronson Hospital, Kalamazoo, Mich., a Creditable Representative of the Small-Hospital Class—Gray Operating Room Found Superior to White—Other Features of Special Interest.

By J. E. BROYLES, Secretary and Manager, Bronson Hospital, Kalamazoo, Mich.

THIS institution is perhaps rather representative of the small hospital as found in cities of from twenty-five to fifty thousand population throughout the country.

It is a fireproof building, having three stories over a high basement. The capacity is fifty beds, and in addition there are two rooms for office purposes, one for delivery room, one for nursery, and seven for operating room suite.

The dietitian has her department in the basement close to the general kitchen and the store

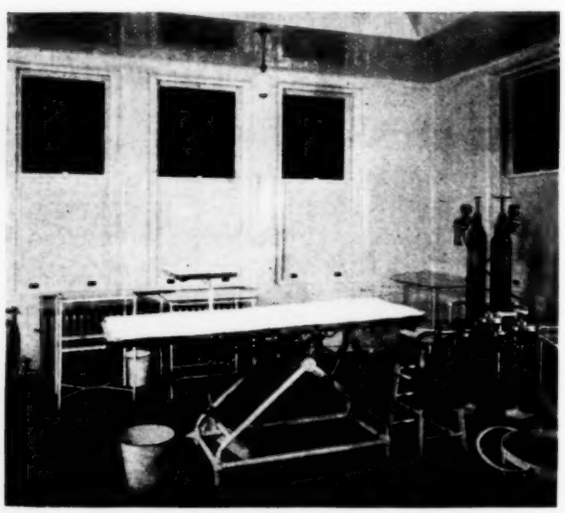

Fig. 1. The usual white operating room. Even in the picture there is a glare here not observed in the gray room.

room. An electric "dummy" carries trays to the floors, and an automatic passenger elevator serves the other elevator needs.

The hospital is controlled by a general manager and a superintendent. The training school, in which there are thirty-five nurses, is directed by the superintendent of nurses and two graduate assistants. Other subjects than practical nursing are taught by attending physicians, practically all of whom have been interns in large hospitals connected with different medical schools.

Though of only fifty-bed capacity, Bronson Hospital in 1917 cared for 1,391 patients, as against 1,193 in 1916 and 1,063 in 1915. Of these, 1,049 had surgical operations, as against 876 in 1916, and 778 in 1915. The surgical mortality for the year 1917 was 1.1 percent. The maternity department cared for 170 patients as compared with 130 in 1916 and 115 in 1915.

While in general this institution is perhaps quite similar to others of its type, mention will be made of a few things which do not savor of tradition.

GRAY OPERATING ROOM

This hospital has recently discarded white as the color in one of its two operating rooms. In its place a rather dark gray has been substituted. This color has been applied to the walls and all furniture, including even the benches for spectators. The customary sterile white sheets, gowns, towels, and headgear have all been replaced by the same articles made from ordinary gray Devonshire as purchased in dry-goods stores. It was found that the cloth could be purchased and made up by a local garment manufacturing company as cheaply as dyers had offered to dye the white supplies already on hand.

This room is located in the southeast corner of the hospital and is lighted by a 6 by 6 skylight and

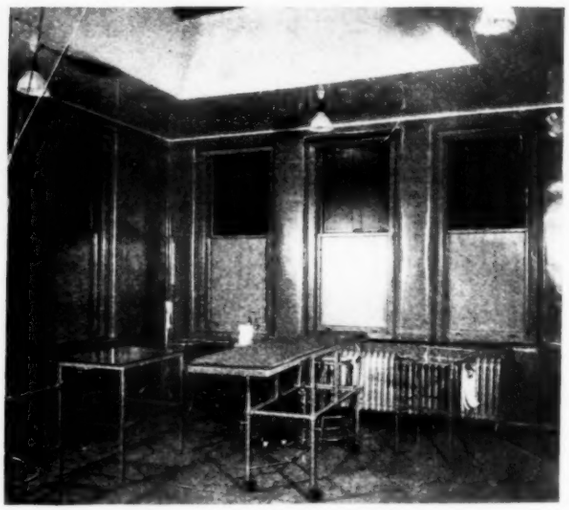

Fig. 2. Operating room in gray, Bronson Hospital. All furniture and side walls are of this color, as are also all sterile goods used—sheets, towels, gowns, and caps.

six ordinary side windows. In white this made an intolerable glare of light. The side walls have been painted gray up to the ceiling. The lower halves of the windows have been painted with the same color, and shades have been provided for the still unpainted upper half of the sash and also for the skylight.

For ordinary laparatomy work a perfect light is obtained by closing all shades but that in the skylight, while the opening of just one shade on

a single side window acts almost like a spotlight in vaginal work. For nose and throat work all shades are drawn so that the head mirrors can be used with perfect satisfaction, yet the room is still sufficiently lighted for purposes of all assistants.

Fig. 3. Ordinary method of hanging charts on the wall. Unsightly, inconvenient, names usually badly lighted, all charts open to inspection by anyone in the corridor.

Only one room was painted gray at first as a trial, but it has been pronounced by surgeons so far superior to the white room that white will undoubtedly be dispensed with completely at the next decorating of the operating suite.

CHART RACK AND HIGH DESK FOR NURSES

The chart rack as used in this hospital has the following advantages over any we have seen in either hospitals or supply houses:

1. It is compact, being a rack that will accommodate one chart for each inch and a half of height, thus avoiding the unsightly method of hanging charts on walls.

2. Charts are quickly found by the doctor or nurse. Each chart has a number corresponding to the same one on both the bed and its shelf in the holder. A label holder on one end of this shelf has the name of the doctor in charge, and one on the opposite end holds the name of the patient. This also prevents the need of one doctor glancing over charts of other patients while in quest of his own.

3. This rack, being placed on an ordinary bookkeeper's desk, brings the whole front at once opposite one's eyes, preventing the need of either stooping or standing on tiptoe to read the patient's or doctor's name which is wanted.

4. The high desk is a great saver of time and labor on the part of the nurse. With the ordinary desk she must either go through the motions of withdrawing the chair from under the desk, sitting down, getting up, and replacing the chair—in addition to the actual writing done; or she must assume the tiresome stooping position while making her record. Usually the record is short and requires less time than that involved in sitting down and getting up again. A high stool is provided, however, for instances in which there is much recording to do.

5. The desk, being 60 inches long, affords abundant room for three or even four nurses or doctors to work or study as many charts all at once, each having a comfortable position while doing so.

Fig. 4. Chart rack made to stand on top of high desk, so all names of patients and doctors are easily seen, avoiding necessity or opportunity for charts to be observed by anyone not attending the case. Note how light is placed so as to light the front of chart rack and also the whole desk top, yet avoiding a glare in the corridor. The high desk saves much time and effort on part of nurse, and permits three or four persons to comfortably record or study charts at one time. Contrast appearance with that of the ordinary method of hanging charts on the wall in Fig. 3.

Another advantage is that the desk and stool are all of wood, thus avoiding the noise incident to closing drawers and moving as is observed in iron-made articles. The paint on iron can be kept no cleaner than can the paint on wood.

6. The drawers usually made in this type of desk afford abundant space for storing generous quantities of supplies, such as chart paper, scratch pads, pins, pens, ink bottles, blotters, dressings, adhesive strips, and instruments needed for dressings on the floor.

Only a part of the hospital has been equipped

with the chart rack and high desk, but it has proved so far superior to the other methods in convenience and saving of time that the remainder of the institution is soon to have the equipment installed.

AIR-PRESSURE SOAP SERVER

This consists of an ordinary bottle with a rubber cork containing two holes and the necessary tubing connecting it with a rubber bulb on the floor. One piece of tubing from the bulb reaches

Fig. 5. One bowl in operation suite, showing soap server operated by one foot on the bulb on floor. Note also ordinary faucets on water pipe. These regulate the flow and prevent splashing while water is running, and recoil in the pipes when foot cock is closed.

just inside the cork, while the other is an inverted L-shape with the end reaching the bottom of the soap bottle.

Pressure on the bulb from one's foot forces the air into the bottle and the soap out of the L tube without touching anything whatever with the hands. Moreover, the soap keeps running until the capacity of the bulb has been reached. If this pressure is continued it is usually all that is required. If all is not used, the suction incident to the expansion of the bulb draws the unused soap back into the bottle and thus avoids dripping and waste. This device has been used exclusively in the operating suite and delivery room for several years with entire satisfaction.

FINANCING A FIFTY-BED HOSPITAL

It may be added that, whereas this institution, at the time I took hold of it in August, 1914, was running behind at the rate of $8,500 a year; last

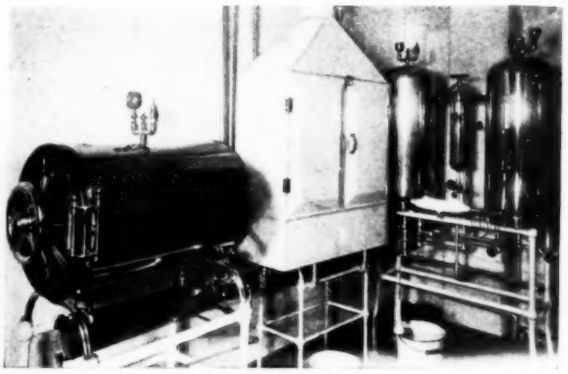

Fig. 6. Sterilizing room, Bronson Hospital. The hood covers the instrument sterilizer and solves completely the problem of steam getting into the room.

year, in spite of the prevailing high prices, we were able to "break even." This, we feel, is a good record for a fifty-bed institution with no endowment whatever.

Superintendents and Scientific Service

The great mass of hospital superintendents in this country feel that their jobs have to do only with the physical management of their institutions and that the care and cure of patients is up to the doctors. This is true only to a very limited extent; the successful treatment of patients is of vital concern to the superintendent of every hospital. If a hospital is not giving to its patients what they are entitled to in the way of scientific facilities for diagnosis and treatment, so that their doctors can give the best service to them, they are going to some other hospital that can give such service. The handwriting to this effect is on the wall in the form of a few overcrowded institutions and many that are unpopular and to which the best class of people in the community do not go when they are sick.

It is the business of the hospital superintendent to know that whatever laboratory of pathology he has is giving the best work of which it is capable to the medical men, for the benefit of their patients. This means that accurate and careful x-ray work shall be done and that competent methods for the special feeding of selected cases shall be established.

Doctors are going to continue to send free patients and the unimportant people of the community to the hospital in which they work, even under present conditions, but doctors must of necessity have an "eye to the main chance," and they are not going to run the risk of losing important patients by forcing them to go to hospitals unable to take good care of them. Any hospital can be filled up with free patients, and most hospitals can be filled up in the paying wards, but the high-class patients who are able and willing to pay for luxuries and hence who are distinct assets to the hospital, are becoming educated, their doctors are becoming educated, and these two classes are helping to educate each other, and the incompetent hospital is going to suffer.

STANDARDIZATION OF HOSPITALS—CLASSES VIII, IX, X, XI, XII, AND XIII

The Limitations and Possibilites of the Small Private General Hospital—The Private General Sanatorium One of the Most Difficult Problems in the Hospital Field—The Evolution of the Industrial Hospital—The Special Problems of Tuberculosis Hospitals

By JOHN A. HORNSBY, M. D., Chicago, in Collaboration with MISS MARY WHEELER, Principal of the Illinois Training School, Chicago; DR. SOLOMON STROUSE, Former Pathologist in and now Member of the Medical Staff, Michael Reese Hospital, Chicago; MISS RENA S. ECKMAN, Former Dietitian, Massachusetts General Hospital, now of Teachers College, Columbia University, New York; DR. J. T. CASE, Roentgenologist, Battle Creek, Mich.; DR. EDWARD S. BLAINE, Roentgenologist, Cook County Hospital, Chicago; MR. E. C. LARSON, Former Accountant, now Assistant Superintendent, Michael Reese Hospital, Chicago; MR. MICHAEL M. DAVIS, Jr., Director, Boston Dispensary, Boston, Mass.

CLASS VIII. SMALL PRIVATE GENERAL HOSPITALS

WE are now getting down to a new class of hospitals, more or less special in character. While Class VIII, consisting of small private general hospitals, cannot technically be called special, it is to all intents and purposes so, because as a rule these small private general hospitals are built around one physician or a small group of members of the medical profession. Until a very recent date they have been built around one single specialist who has been wise enough to choose a group of associates to make up a general staff, but the dominant man has fixed the status of the institution, and that status has been usually along the lines of his own specialty.

Quite recently medical men have seen the handwriting on the wall, and have been broadening out their viewpoints in the creation of even a private hospital enterprise, and have been associating with themselves specialists in other branches of medicine, who together have been doing teamwork.

Let us not confuse the private general hospital with the small public general hospital; the two are vastly different, the public hospital being partly general and the private hospital being essentially a special institution built up around a specialty and the specialist.

What are the special problems in this small private hospital? These hospitals are usually built and organized to afford some medical specialist better facilities for practicing his profession, and as a rule they are conceived by him along rather narrow lines. As the idea grows, the limitations of his institution recede—in step with the trend of the times—and before he is quite ready to open his institution he has generally conceived the notion that in order to give a real service, even to his own patients, it will be necessary for him to associate with himself one or more men in the other medical specialties. Hence it comes about that a purely private hospital, one financed privately, takes on the concept of a general institution.

The staff of such a hospital will obviously be made up of men selected by the originator of the scheme, and will include a chief surgeon, an internist, an obstetrician, who will also sometimes do pelvic surgery, an eye, ear, nose, and throat specialist, and occasionally a neurologist. The chief of staff is the originator of the scheme, and too often he will also be the administrator of the institution, having under him a socalled superintendent who will nearly always be a woman-of-all-work and who will be either incompetent or one of the most versatile women imaginable. The other men on the staff will usually have very little to say about the institution's management, and will be given such facilities as the chief desires them to have.

This organization of a private hospital is the worst imaginable. It gives no opportunity whatever to the members of the staff, excepting just what the chief decides on. And of course the limitations of the hospital will be great, because of the unsatisfactory service that the staff members will have.

A very much better way to organize such a hospital is to have all members of the staff financially interested in it, so that they will have a voice in the management. The narrowness, however, of the man who will organize a hospital, giving himself all authority and assuming all responsibility, will be expressed further in his refusal to give broad opportunities to his associates. The man who is big enough to see the mistake of such a policy will have been broad enough to make a far better organization. We see very many of these small private hospitals whose superintendent is at her wits' end, trying to give a decent service to several medical men while she is bound by the specific instructions of the chief to the contrary.

We can well see how one of these small private hospitals could be made a tremendous influence for good in a community. It can be conceived on broad lines, and in proportion as all the members of the staff are given equal opportunity and equal

facilities, just in that proportion will the institution grow and be successful, even from a financial standpoint. It will probably be necessary in any institution of this class that the medical men shall assume some administrative responsibility because their money is invested in the enterprise and because their close associations in the community will often make it desirable for them to conserve certain interests. But even then the administrative function can be exercised through a committee of the staff far better than by a single individual—a committee of three, for instance, the superintendent being the executive officer and reporting to the committee as a whole from time to time, and carrying out such policies as may be agreed on. Let us warn those at the head of such an institution that they are foredoomed to failure unless they give to their superintendent direct responsibility and authority in the handling of employees, the maintenance of discipline, and the creation of departments necessary for success. The authority of the trustees or owners must always be exercised through the superintendent, and it must always be understood by employees and by those doing business with the institution that the superintendent is the final authority.

Nursing.—The small private hospitals will generally run from ten to twenty-five beds, not large enough to justify the inclusion of a training school. In most of them private graduate nurses will have to be employed. Too many times when one of these small hospitals attempts to conduct a training school it is solely in order to obtain young women at nominal wages to act as menials and as nurses. This is an atrocious practice, and it is responsible for recent laws in many states fixing the bed capacity below which hospitals may not conduct training schools.

As a matter of fact, no private hospital should ever be permitted to have a training school, because they are conducted for money, and pupil nurses will invariably be used as domestics and as part of the money-making establishment. Sometimes country girls can be hoodwinked into coming into one of these private hospitals, and the girl who is so simple-minded and whose parents are so unsophisticated as to allow her to enter will hardly appreciate the injustice of her treatment there.

This is not saying that some of these private hospitals are not mighty good things in the community. Oftentimes it is the only chance for a community to have the advantages of a hospital of any sort, and almost any hospital is better than none. But there is every reason why the small private hospitals should be of real service in the community, and where they are not so it is due entirely to the narrow vision and the narrow-mindedness of those in charge of them. The nursing service in such a private hospital ought to pretty well pay for itself out of earnings for the special nursing of private room patients. There is never any excuse under any circumstances for a ward patient's having a private nurse; on the contrary, it is against every principle of good hospital management. A private nurse in a ward will disturb and interfere with every patient in the ward. The wards in such a small hospital as we have under consideration are so small that there will be at most only four patients, and one nurse can take care of four patients in one room almost as readily as she can take care of one.

The superintendent in a hospital of this class ought also to be the head of the nursing. She should also be the housekeeper and should do the buying. It will be a mistake to have the housekeeper keep the books. She can admit patients. The books ought to be kept by someone who can come in for an hour a day and who is in the business of bookkeeping in the town—a bank clerk, for instance. There can be a petty cash account that the superintendent can handle, with a day book, and admission and discharge cards can be filled in by the superintendent, and these can be turned over to the bookkeeper at the end of each day's business.

The Laboratory.—There is no good reason why this small private hospital should not have some good laboratory work. The volume of work will not be large, and usually there is at least one man in the community competent to do at least the simpler things. If there is money available, the owners had better employ a technician, and, in proportion as they employ a good one or a bad one, that department in the hospital will be successful or a failure. In a community in which such a hospital as this is likely to be created, there is almost always great need of pathological work, and, if the hospital has competent help in that department. there will nearly always be profitable work to be done. If the technician is incompetent, there will be very little business; even the men in the hospital will not care for the results of such work. If there is a good technician, men outside as well those within the institution will employ the laboratory, and within certain limits it does not make very much difference how much salary a technician is paid. The profits of the department will be commensurate with the value of the work, so that one of these small hospitals will often make more money, if that is the test of success, by paying a good salary to a good technician in the laboratory department. The equipment of such a laboratory is not so important. Five or six hundred dollars

will furnish everything that will be required, including a microscope.

The housekeeping functions of a hospital in this class are so obvious that it seems hardly necessary to go into them at this time. If the superintendent is competent, she will know how to supervise the cooking and the cleaning forces. The cook can waste or save an immense amount of material in proportion as she knows how to cut meats, use the left-over things, and how to conserve her food supplies. The house will be clean or untidy in proportion to the driving power of the superintendent.

CLASS IX. PRIVATE GENERAL SANATORIUMS

The patients in a private sanatorium are usually well-to-do people; generally they are ambulatory, very often afflicted with a nervous disorder, and always they are finicky, hard to please, and, having nothing to do, are very apt to let things get on their nerves—and altogether they form the most difficult of all classes of patients to take care of.

Recognizing these facts, we can easily assume that the successful management of a private sanatorium is one of the most difficult problems in the hospital field. Too often the administrator of such an institution loses sight of the real reason for its existence, and after a long and harassing career he is willing to assume that the chief function of his institution is to please his patients. We, who are not so close to the problem as he is, know that today, in view of our greater skill in diagnosis and treatment and of our knowledge of the principles of physical therapy and special feeding, we are able to do more than merely please the patients that find their way into the private sanatoriums of the country. We know now that, by using all facilities of which medicine is the master, with proper discipline and proper dietary after a decent diagnosis, we can cure many of these people and make very many more of them comfortable and relatively happy. But we know also that we cannot do the best of which we are capable and at the same time yield to all their whims and fancies; hence it is a trial of tact and diplomacy as well as of skill to persuade these patients to submit themselves gracefully to necessary therapeutic measures that may not be at all pleasant.

Of course the main thing in a sanatorium is to make a correct diagnosis, which very often has not been made at the patient's home; with the diagnosis in hand, then the further guidance of the patient is rather a simple matter, at least to one who has already acquired the tact and persuasive powers adequate to the task.

In order to make a proper diagnosis, there must be laboratories, and it is imperative that these be competent—that is, that they be in competent hands.

There are many hundreds of these sanatoriums all over the country whose proprietors and administrators find it impossible to understand why they are not crowded with patients. The air is pure, the scenery is fine, the water and food are excellent; there are beautiful groves and pleasant walks, fine trees, tennis courts, golf links, and all the essentials to almost an ideal life of pleasure. Why are not such sanatoriums popular? Largely for the reason that members of the medical profession today are demanding more for their neurasthenic and chronic patients than they used to demand. The medical man back home does not know about the beauties of the scenery and all the pleasures of the "resort," but he does know, and he makes it his business to know, that his patient is not getting a real service; that a scientific diagnosis has not been made, and that the patient is not under skillful scientific treatment. Some years of this sort of thing has made the average member of the medical profession quite skeptical about the value of the average sanatorium, and he wants to know a good deal about the place and about what is done there before he is willing to advise his patients to go.

Then it may be asked, What are the essentials to a successful sanatorium? The answer to this question is the discussion of this class of institutions with which we are now confronted.

In the first place, the patient who is sent to a sanatorium is not suffering from an acute disease; it is chronic, and most chronic diseases are more or less obscure. Consequently an adequate diagnosis is the first thing to be thought of.

A competent medical staff is the first essential—not one man who specializes in, let us say, nervous diseases, and not two men, but a group of medical men, each one a specialist in his branch and each one far better than those to whom the average patient had access back home. Then, there must be adequate laboratories that can aid the staff in making a diagnosis. A technician at the head of such a laboratory is of no service whatever. The director must be a thoroughly trained pathologist and bacteriologist, and he ought to be a physiological chemist as well. A man competent to direct the laboratories of such an institution is in demand at $5,000 or $6,000 salary. Many of these sanatorium proprietors and administrators will say, of course, that they cannot afford such salaries. Our reply is that they cannot afford incompetent people, and, if they have incompetent people, they are more than likely to fail in their en-

terprise, or at least drift along with a mediocre success.

Our conception is that the ideal sanatorium is yet to be developed in this country, and he who develops it will earn a reward, professional and financial, that will be a complete compensation for his financial outlay and the great task that he will have accomplished.

The European sanatorium has always been more than half a failure. It has nearly always been developed around a single specialist or around a spring of some sort. The European clinician has imbibed sufficient spirit of autocracy to have dominated all his patients, at least to the extent of compelling a proper dietary and a proper regime, or code of living. But the European sanatorium has also imposed on its patient an artificial mode of life, one that it is impossible for the patient to continue after his or her return home—with the natural result that, just as soon as the restrictions are removed, the old temptations come as to dissipation or work, and, no attempt having been made to strengthen the patient's resistance against these temptations, there is an early relapse.

The ideal American sanatorium must correct these shortcomings of the European institution. It must make a proper diagnosis and institute proper treatment under workable conditions; but it must also inculcate a habit of living salutary under the patient's condition, and not a habit that cannot be pursued evenly by the patient after he returns home. Some day such an institution will be opened in this country, and its immediate success will utterly destroy the present money-grabbing, oftentimes dishonest, and almost always incompetent sanatorium administration.

We doubt very much whether the ideal sanatorium is to be administered by a medical man, and, if so, he will be more than an administrator and less a clinician. It seems to us the two functions are almost antagonistic—and yet we can well see how the administrator of such an institution must be thoroughly in sympathy with professional ideals and the demands of modern medicine; and he will be not only willing, but able, to meet these demands in the various departments of the institution of which he is the administrator.

In marking such a sanatorium under the schedule of our standardization, consideration ought to be given to the diversity and the competency of the medical men who make up its staff, to the number and training of the resident medical officers or interns who are supposed to carry out orders, and to the adequacy of the nursing. The physical parts of the hospital are not unlike those of any other institution and can be marked accordingly.

It is obvious that there can be no training school in connection with a sanatorium, or, if there is a training school, that the training must be highly specialized, and there certainly should be affiliation with an acute disease general hospital.

CLASS X. INDUSTRIAL HOSPITALS

The industrial hospital in this country is undergoing more evolution than any other institution. Legislation, national and state, including employer's liability, compensation during illness, health insurance, old age and service pensions, and the like, are all making for quick kaleidoscopic changes in the form and limits of the modern industrial hospital. It is a grave question whether the industrial hospital of the future is to be conducted by the industrial corporation or whether that corporation is to submit the care of its sick to competent general hospitals under other management. We are very much disposed to think the latter will be the outcome, for two reasons. In the first place, a secondary function or a function of secondary importance is rarely given primary consideration, and, while the care of its sick may be viewed as of so great a magnitude by a corporation as to justify the employment of competent hospital heads and medical men, yet the responsibility and the authority would always lie with the business heads of the corporation, whose first impulse is to look after the finances and the profits. That is not the best sort of idealism in a hospital, and, since the public is being rapidly educated in this country, it is not going to take the average employee very long to find out that his health, in the estimation of his employer, has a dollar and cents value, and that the pros and cons are likely to be weighed in his care.

In the second place, there are such intimate financial relations between the employee and the corporation that there is a disposition already among legislative bodies and the labor leaders to take the sick or hurt employee out of the control of the corporation in order that undue influence may not be brought to bear to enforce a settlement of his claims for injury or occupational illness. The industrial hospital at the present time is, however, a very efficient and businesslike institution, and we are wondering whether it is not, as a class, the best and most efficient hospital in this country. It is certainly business-like, well equipped, well financed, and usually well manned.

The cases treated in the industrial hospital are oftener than not surgical in character, and, except in the out-patient or dispensary department, almost always acute. Hence diagnosis is not difficult and treatment is usually obvious.

Where the welfare department of an industrial

corporation, which usually includes the hospital, undertakes to look after the health of the employees in their own homes, the service is largely a nursing one, partly higienic and partly sanitary, and no intricate problems are involved.

It is obvious that a good doctor who is well informed in the principles of medicine, who is a good clinician, and who can do modern surgery aseptically, and who, withal, can have a sympathetic interest in the troubles of the employees of the corporation, will be the best possible head for such an enterprise. The unusual case requiring the services of a specialist can better be referred to someone in private practice, and will it be not only cheaper in a financial way, but the employees will likely have more expert service than he would get from a company doctor because of the very limited practice that such a doctor would probably have.

An all-time resident physician, and, if the service is large enough, one or more interns, will be extremely desirable, because an employee, when sick or hurt, needs immediate service, and unless he gets it will feel and will have a right to feel that he is being neglected by those who, he has a right to expect, are charging themselves with responsibility for his welfare.

The nursing in an industrial hospital ought to be in the hands of trained women. There are too many ethical problems and too great a demand for tact for this service to be intrusted to untrained or partly trained pupil nurses, and this class of hospitals will find themselves in better accord with their employees and patients if the nurses are women who have already been trained and have had experience in the handling of the public.

The laboratory of the industrial hospital need not be a matter of very great importance. The director should certainly be a good bacteriologist because so many of the illnesses and injuries of industrial employees are due to bacterial infection.

There should be a good x-ray department.

CLASSES XI, XII, AND XIII. TUBERCULOSIS HOSPITALS

We have three classes of tuberculosis hospitals —large public institutions, small sanatoriums of fifty beds and under, and the private tuberculosis sanatorium—Classes XI, XII, and XIII. These may easily be considered at one time.

The fundamental principles underlying their administration are all the same. The general administration of these sanatoriums is not different from that of any other hospital. The laboratories are needed for purposes of diagnosis and to keep in constant touch with the progress of patients. The nursing is always special and should be done by graduate nurses, and the problems of the physical administration are precisely those of other institutions. So that we need not discuss any of these things at this time. There are some things, however, that ought to be considered as appertaining to tuberculosis institutions, and we shall address ourselves to these special problems.

Some years ago it seemed to be accepted as the only proper course that as soon as a patient acquired tuberculosis he should be sent to the mountains; later on, when it was found that patients sent to Denver and the mountainous country were promptly dying, there came a new trend, and patients were sent to a warm and dry climate—California, New Mexico, Arizona, and southern Texas. The late Dr. Nicholas Senn made the prediction, after he had been to Labrador, that the future tuberculosis mecca would be somewhere in the arctics. Dr. Hornsby, who served in Alaska for some years, observed that tuberculous patients almost invariably recovered even in an arctic winter. The whys and wherefores of these various experiences and views need not be debated just now, but they go to show that we do not know all there is to learn of the effect of climate and environment on tuberculosis. Within the last two or three years a new problem has developed—namely, whether institutional care of the tuberculous offers any advantages over proper home care. There are advocates of both these views, and the problem still remains to be solved.

But just now we are discussing institutions for the care of the tuberculous. It goes without saying that as soon as a tuberculous patient enters a sanatorium an intensive study should be made of the case, clinical and bacteriological. In order to make this study, there must be good clinicians, experts in tuberculosis, and there must be a good laboratory in which part of the study can be made. After the diagnosis is definitely made and the stage of the disease is well established, treatment is mapped out and is, as a rule, pretty rigidly adhered to in most carefully conducted institutions.

It is easy for the discipline of the institution to keep the patient in bed when there is an elevation of temperature, and it is comparatively easy to feed such a patient because he does not eat much and will not be expected to eat very much, and milk will be the chief article of diet. The out-of-bed patient, however, is a more difficult problem and becomes an administrative problem; the better and stronger he gets, the greater will be his rebellion against discipline, and especially against the monotony of the institution food. Wise old horsemen say that if you throw dirt in a balky horse's mouth, he will start because he will be so intent on getting the dirt out of his mouth he will

forget that he is balking. That principle might be applied on a human being as well as the horse. At any rate, it is certain that if the querulous, fault-finding, trouble-making tuberculosis sanatorium patient is given something else to think about, he will have less time and less disposition to find fault with his food and with his environment. That is one reason why we think that more attention ought to be paid to diversion and recreation for tuberculous patients. Another reason is that we have found in our own experience that patients who can be made to forget themselves will be better off, mentally, morally, and physically, and hence will be aided in their cure.

Then, the doctors agree that a certain amount of judiciously applied exercise for tuberculous patients will aid the system in its office of metabolism and will help to clean up the waste, the products of disease, from the tissues and carry it along the blood stream to an exit somewhere.

So there are three things to consider besides diagnosis, treatment, and food—namely, recreation, diversion, and occupation. These three things are highly important, and the competency of a tuberculosis sanatorium can almost be measured by the solution of these problems alone. Of course the question of employment or occupation and its amount and character is wholly within the realm of the clinician, but the putting into execution of the physician's order is essentially an administrative problem and should be so regarded.

The patients will always be amenable to the principles of recreation and diversion. They like moving pictures, and story books, and the victrola, and like to be entertained by anyone who can sing or play, or who can talk interestingly. But these patients do not like to take exercise. They are almost always tired, and all sorts of schemes must be employed to cajole them into taking erercise, even exercise which is not in the form of work.

An excellent plan along this line is to have somebody in the institution, preferably a woman, who will inform herself or who will have been trained as an entertainer. Such an employee could take selected groups out for walks and talk to them along the way; for instance, if the walk is through the woods, the flora of the neighborhood could be the subject for discussion, and the entertainer would have posted herself about the plants and flowers and trees, their general characteristics, their species and their relations one to another. Another talk could be on the birds of the neighborhood. A most interesting hour can be spent, even if there are only half a dozen varieties of birds encountered. Another talk might be on the animals indigenous to the neighborhood—rabbits, squirrels, and perhaps larger game like beaver or deer—and there is so much that can be said of a most interesting sort on any of these topics. Out in the country the clouds can be made a most interesting topic of discussion, and it will not require a great amount of investigation and study on the part of the entertainer to be thoroughly posted so that she can give the patients a most interesting hour and make them forget at least for that time their troubles.

Gradually patients can be coaxed to participate in these little outings, and some of them can become fine entertainers themselves. Then there can be little theatrical performances, and the patients with incipient cases can be invited to participate, greatly to their benefit.

But we still have the problem of work. Most tuberculosis patients, especially in the charity institutions, peremptorily refuse to do any part of the routine work, and it is the complaint all over the country that these people cannot be made to work. Some of us have not had this experience probably because we have made the work a means rather than an end. In other words, we have found that if a patient has a certain amount of graded exercises prescribed by the doctor, prescribed because it is necessary as a part of his cure, there will hardly ever be any objection to it, and the administrator can more easily enforce a doctor's order for a certain specified amount and kind of exercise than he could enforce the order for a specified amount of scrubbing or cleaning to be done.

Usually there is no medical staff problem in a tuberculosis sanatorium; there should be enough doctors, specialists in the treatment of that disease, to watch the patients carefully and to examine them at regular intervals, even enough to be sure that the very best is being done for them that can be done. The nursing problem is not difficult. The nursing should be done by graduate nurses who are trained in the care of tuberculous patients; they need to have had special training in order to enforce the discipline of the institution, and especially to enforce the orders of the doctors, to see that patients stay in bed when they should, to see that they eat a sufficient amount of food, and to see that they take enough and not too much exercise, and, above all else, to see that they are not permitted to mope and brood over their troubles.

The physical and housekeeping problems differ in no wise from those in other institutions. A clean sanatorium is also a clean hospital. Good food, well bought, properly stored, advantageously prepared and invitingly served, is necessary in any kind of hospital. It is also quite as necessary to see that there is proper ventilation, proper heating, good plumbing and sewerage.

KISTLER MEMORIAL HOME FOR NURSES OF LOCK HAVEN HOSPITAL*

Comforts and Refinements of a Real Home Furnished Lock Haven Nurses in Memory of the Late Wilson Kistler—Construction, Equipment, and Furnishings Well Designed for Purpose

By C. HAPPERSETT, R. N., Superintendent Lock Haven Hospital, and LOUIS H. RUSH, of Rush & Harris, Architects, Philadelphia

THE city of Lock Haven takes great pride, and with reason, in the home for the nurses of Lock Haven Hospital erected as a memorial to a public-spirited citizen, Wilson Kistler, by his family. The excellent judgment displayed in the construction and equipment and the good taste employed in the furnishing make this not merely a modern, well-appointed building, but a most attractive and homelike home.

The building stands on the slope of the hillside overlooking the picturesque West Branch of the Susquehanna, facing the north side of the Lock Haven Hospital. It is three stories high, with a basement; the dimensions are 80 feet front by 40 feet deep. At each end are broad open verandas, 12 by 40 feet. The material is brick laid in English bond, with an "unfading green" slate roof. White marble keystones above the windows and white plaster panels below emphasize the rich, soft tone of the brick. The design is pure colonial.

Fig. 1. The Kistler Memorial Home for Nurses of the Lock Haven Hospital, Lock Haven, Pa.

The basement is thoroughly waterproofed to prevent dampness. It contains a large trunk room, a boiler room, and seven light, cheerful bedrooms for the hospital maids, also toilet. As it was desired to make the living quarters of the domestic staff entirely distinct from those of the nurses, a separate outside entrance is provided.

The ground floor (Fig. 5) contains a large living room or lounge, a writing room, a kitchenette, a suite for the superintendent, and two bed rooms for head nurses. The large living room (43 by 28 feet), where the nurses can enjoy the victrola, hold dances and have informal little parties, is one of the very best assets of the home. The large fireplace (Fig. 2), where the nurses can pop corn, toast marshmallows, etc., is also a source of much pleasure.

The homelike appeal of this room is enhanced by its artistic decorations and furnishing in tones of ecru and delft blue. The two-toned paper, the sun-fast silk curtains, and the window shades are ecru, while the woodwork, the large, plain rug, and the denim upholstering of the mahogany chairs are of delft blue. The wicker easy chairs are enameled in ivory, and upholstered in figured chintz harmonizing with the colors of the room.

Fig. 2. The living room or lounge in the Kistler Memorial Home, showing the open fireplace where the nurses pop corn and toast marshmallows on winter evenings.

Fig. 3. The writing room in the Kistler Memorial Home.

Opening from the living room is the writing room (Fig. 3), which occupies the northwest corner of the building, and measures 15 by 20 feet. In this room the walls are hung with a Japanese

*This paper is the second of a series of articles on the subject of nurses' homes, the first being a paper on "Nurses' Homes and Some of Their Requirements," by Olof Z. Cervin, published in January.

grass cloth effect; the rug is ecru, and the woodwork putty-colored. The furniture is dark-toned oak, upholstered with gay chintz.

As the regular dining rooms of the nurses and domestic staff are in the hospital building, the nurses' home contains no provision for cooking except a kitchenette, where refreshments may be prepared for entertainments.

In the southeast corner of the building is the superintendent's suite, consisting of bed room, sitting room, and bath. The furniture in this suite is oak and the decorations correspond with those in the main room. Across a small hall from the superintendent's suite are two rooms with a connecting bath for the head nurses. One of these rooms is furnished in French gray and pink, the walls and the wooden furniture being finished in the French gray. In the other room the furniture is mahogany, the colors of the rug, etc., being green.

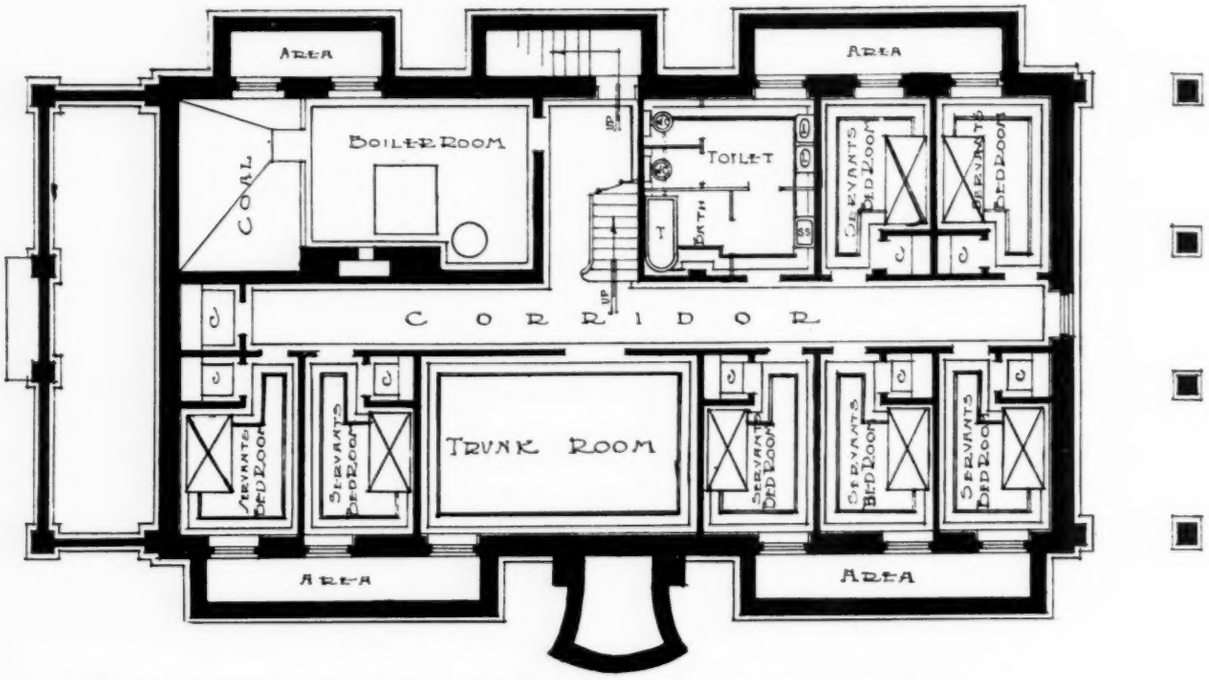

Fig. 4. Basement of the Kistler Memorial Home, showing the quarters provided for the domestic staff of the hospital.

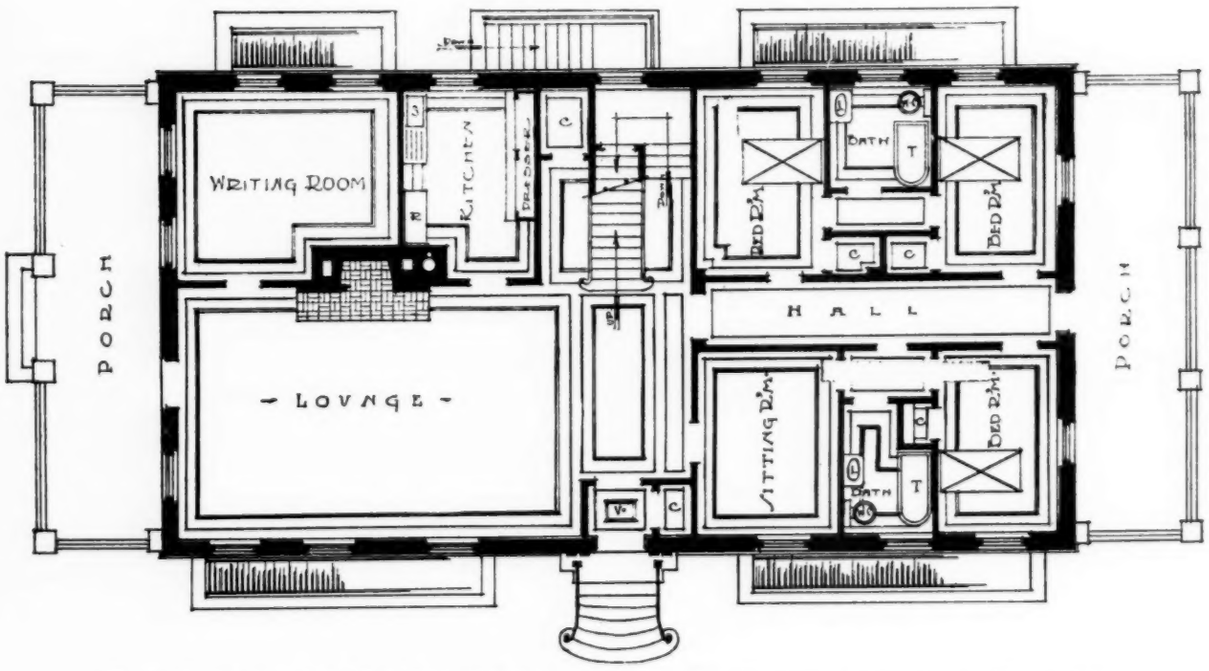

Fig. 5. Ground floor of the Kistler Memorial Home. Note the ample living room or lounge and the wide verandas.

The upper floors, approached by a colonial stairway with a Palladian window at the landing, contain ample accommodations for twenty-four nurses. The second floor contains, besides a linen room, toilets, baths, and a housemaid's closet, eleven bed rooms, each for occupancy by one nurse and each measuring about 9 by 15 feet. Four of these rooms, in the north end of the building, are cut off by a separate corridor from the other rooms, and carefully insulated from all noises. These are for the use of the night nurses.

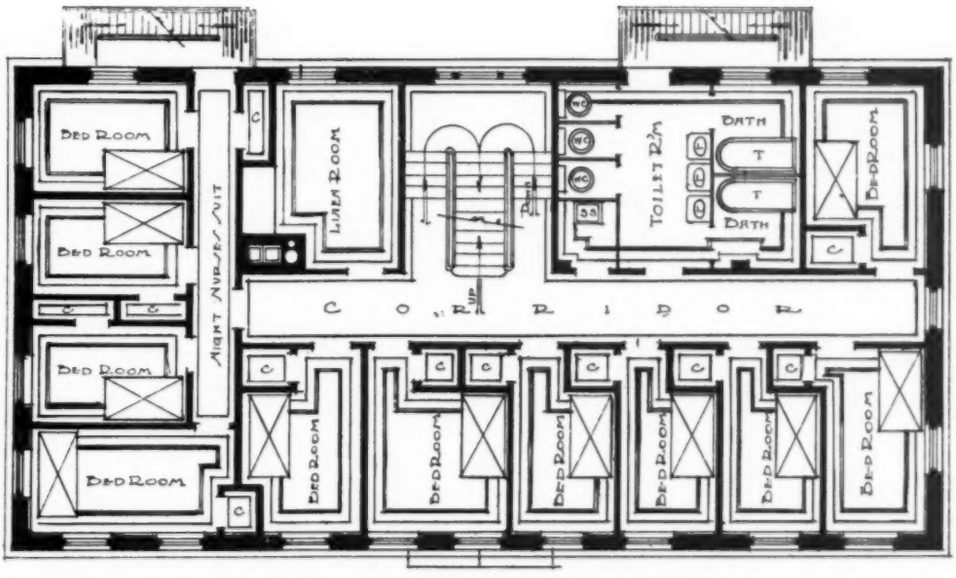

Fig. 6. The second floor of the Kistler Memorial Home.

The bed rooms have wooden furniture in a French gray enamel finish. Half are furnished in pink and half in pale green.

The third floor is intended for pupil nurses. It contains, besides toilets, baths and a housemaid's closet, one bed room for the occupancy of one nurse, one for two nurses, one dormitory for eight nurses, and one dormitory for four nurses. Each nurse in the dormitories, as well as in the bed rooms, is provided with her own clothes closet. The decorations and furnishings are the same as those on the second floor.

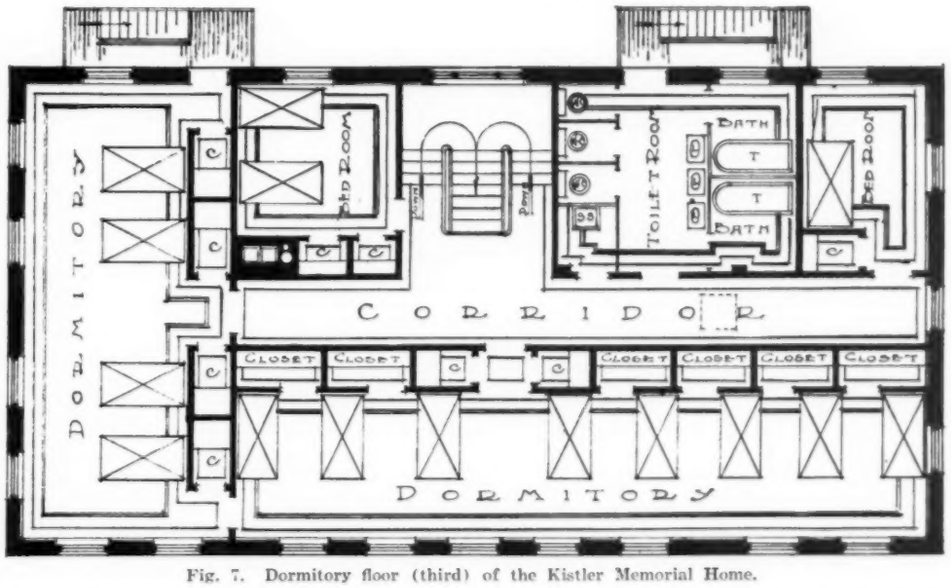

Fig. 7. Dormitory floor (third) of the Kistler Memorial Home.

The building was erected by Rush & Harris, of Philadelphia. It is heated by vapor vacuum heat with automatic regulator. The entire cost of the building was $30,000; the furnishings cost $4,000. The expense of operating it is very low, for one maid is able to keep it in spotless condition.

Courage in the Wards

In a war hospital a poor little specimen of humanity lay wounded nearly to death, says *The Hospital*, London. No home, no father, or mother could he call his own, and, living mainly by his wits, he had supported himself entirely from the age of twelve. He was pale and shriveled, with the expression of a sick monkey, the lasting token of years of half-starvation. Yet in this frail mockery of a human frame there lived a courage that would grace a king. Joining the army before attaining military age, he was but eighteen when a shell shattered both his legs, rendering necessary a flush amputation through each thigh. A day or two later, while he still was near to death, the ward sister, to cheer him up, said, "You know there's nothing the matter with you; you're only wounded." "Well," was his reply," if there's nothing the matter with me, sister, it's time I got out of bed and looked for the other half."

The Y. W. C. A. plans to use part of its funds raised in the last campaign for the comfort of nurses in service overseas. Nurses' huts are being constructed in places where those on hospital service have no heated comfortable quarters to use when off duty, and in Paris a house is being planned where nurses on leave may receive comfortable accommodations at moderate rates. Many nurses' associations on this side have contributed liberally to the fund for this purpose.

A new hospital for contagious diseases has recently been completed by the city of Mitchell, S. D. The structure is of brick and cost $15,000.

CONTROL OF EXERCISE IN PULMONARY TUBERCULOSIS

Absolute Rest May Easily Be Overdone, But Exercise Should Not Be Attempted Except Under Medical Supervision—Valmora Sanatorium Has Instituted an Automobile School

By H. L. STARING, M. D., Resident Physician, Valmora Sanatorium, Valmora, N. Mex.

A GLANCE at the history of many of our methods of treatment at the present day will convince us that the most valuable are those which have been used, discarded, and finally, with a few modifications and more caution, have regained a place among our useful therapeutic agencies. Exercise in pulmonary tuberculosis is no exception to the rule. Not many years ago the diagnosis of pulmonary tuberculosis was accompanied by a prescription for a long walk before breakfast, exercise in the fresh air, forced feeding, etc., which extreme caused the pendulum to swing and we have not, as yet, recovered from the absolute rest period which resulted.

We fear, however, that some of us have, in our scientific enthusiasm, forgotten the important fact that in the majority of instances our patients come to us expecting not only a cure or an arrest of the disease, but also a preparation for future activities.

Absolute rest, so essential in those cases in which the temperature is above 100 F., can, however, be overdone. We have seen patients coming to us from other institutions, after months of absolute rest, who could not walk across the lawn without experiencing marked dyspnea. These patients have had normal temperature and pulse for several weeks, yet they have been so "mollycoddled" that it is only after much persuasion that we can induce them to try a little exercise daily. Months must elapse before these patients can be given work that will remove them from the class of dependents.

Exercise, however, like vaccines and heliotherapy, is a double-edged sword and should not be attempted except under medical control. We are in a position to give the patients at Valmora individual attention, suggesting the amount and character of exercise for each, beginning with absolute rest and gradually increasing the exercise to the usual eight-hour day. In larger institutions it would be necessary to have fixed occupations and assign the patients in groups. increasing and decreasing the exercise, as we would in vaccine or heliotherapy, using the temperature and pulse record as a guide. This would never, however, replace the daily supervision by the medical director.

Again, we must not forget our patient's mental status. Usually he arrives at the sanatorium, alone, after a period of illness at home where he has had the care and companionship of relatives which companionship we cannot hope to supply. It is our duty, however, to supply, as soon as possible, some substitute, in the form of congenial occupation. When possible, this should coincide with the patient's former occupation. But when, as very often happens, this is not practicable, our next object would be to supply an occupation that will equip the patient for residence in a more suitable climate, should he desire to do so.

Such is the object of the automobile repair school in connection with Valmora, in which school the patients will be taught driving and repairing of cars under a competent instructor.

A graduated scale of exercise is hardly practical, except as an aid to the medical director in allotting the work or rest for each individual. Under no circumstances should a patient be permitted to increase his work without the consent of the medical director.

Such a plan as I have attempted to outline, I think, would eliminate many of the digestive disturbances so frequent in patients who do nothing but rest. It could be used with vaccines, tuberculin, or heliotherapy in cases that show a tendency to remain stationary. On the day of vaccine, and for forty-eight hours thereafter, the patient should not attempt to take more than one-half of his usual exercise. The dose of vaccine or tuberculin must be so regulated as to produce the minimal amount of reaction, and this reaction, local, focal, and general, studied and recorded carefully after each administration.

In conclusion, I wish to emphasize again the danger of indiscriminately prescribing exercise without fixed standards and individual medical supervision. While it is essential that the patient remain, during his stay in the sanatorium, as near the physiologic requirements as possible, we have to deal with a very narrow margin and only one with experience in the treatment of tuberculosis should be considered qualified to determine the amount of rest or exercise required by each patient.

The Parkland Hospital, Dallas, Tex., has recently installed a new laundry.

A CONVENIENT X-RAY ILLUMINATOR

Breakage Saved and More Satisfactory View of Radiograph Obtained Through Use of Simple Device

BY W. T. BAILEY, M. D., Assistant Superintendent, and A. B. DENISON, M. D., Special Resident Physician, Lakeside Hospital, Cleveland.

It is doubtless an acknowledged fact that x-ray plates which are valuable for hospital records become smashed and cracked in many instances in which it is impossible to obtain duplicates. This condition is especially likely to exist in teaching hospitals where a considerable number of individuals handle the radiographs. We are all familiar with the method usually employed—viz., the clinician inspects the plate and passes it on to a section of students for their individual observation; this involves considerable time, and there is always more or less possibility of the plate becoming cracked or dropped in the process of passing it about.

We have devised a comparatively simple method whereby breakage is reduced to a minimum, and at the same time a more satisfactory view of the radiograph is obtained and a much shorter period of time consumed, especially where groups of students are examining x-ray plates. A wooden box has been constructed whose ends are equilateral triangles, the dimensions of which are 17

Fig. 1. Convenient portable x-ray illuminator.

inches; the slant surfaces and the base are rectangles 17 by 15 inches. The material used is ⅞-inch hardwood, shellacked on the outside and painted white on the inside. On the side where the socket is attached we have nailed in a strip of wood 2¾ inches wide by ⅞ of an inch thick, this piece of material running the entire width of the box; between it and the outer wall is a space for the electric wires. Inside the box is installed a 100-watt nitrogen daylight lamp, with a switch on the outside of the box, and a cord of varying length with a screw plug which can be attached to any hospital or dispensary electrical current. On the front surface of the box we have used a ground glass plate, which is fitted in flush with the edges of the box. A small gutter of wood is attached to the bottom to hold the x-ray plate. Since it rests against a slanting surface, we have not found it necessary to attach any device to the top to hold the radiograph in position. The weight of the illuminator does not exceed 10 pounds; thus it is readily portable and can be used in any building where there is electricity, provided a sufficiently long cord is used to attach it to a socket.

Already we have made quite an improvement; the diffusibility of the light has been increased by pasting on the inside, about 2 inches below the level of the ground-glass plate, a single layer of white tissue paper. This has done away with the necessity of using any method to shut out the excess light when examining a radiograph.

The first illuminator was made three months ago for a medical ward, but it has proved so convenient and satisfactory that it has been in demand by the other wards; we have since installed two more, and have had requests from the heads of the several departments for one of these illuminating boxes. As yet it has not been experimented with

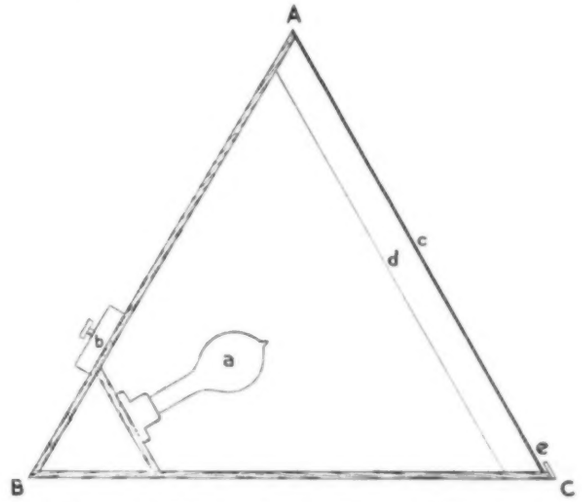

Fig. 2. Diagram showing construction of x-ray illuminator. Length from A to B, B to C, and C to A, respectively, 17 inches; a, blue glass nitrogen lamp (100-watt); b, switch; c, glass plate (ground glass); d, tissue paper or ground glass; e, groove for holding plate.

in the clinical amphitheaters, but we feel that it could be used advantageously in such places, and no doubt it would find a ready field in the surgical and medical departments of the out-patient department. On the whole, we find it a labor-saving device, and, whereas formerly an x-ray plate was handled by some twenty people or more, with the advent of the illuminator it need be handled only twice—when the radiograph is placed on the box and when it is removed.

The expense involved is as follows:

Carpenter's labor and material	$2.00
Electrician's labor and material (including the nitrogen lamp)	2.25
Painter's labor and material	.75
Total	$5.00

It is barely possible that this expense could be reduced quite materially if the illuminator were standardized and a considerable number of them made.

The erection of base hospitals, enforcement of personal hygiene and the installation of a drainage system of the most improved type form a part of plans being put into effect at the plant of the American International Shipbuilding Corporation on Hog Island, Philadelphia, to insure the health and safety of the 34,000 workers. "Shock Squads" to care for men injured on the high-power electric wires; a portable submersion hospital, always present at the point where the greatest number of men are working on the water front, with pulmotors and other necessary equipment for resuscitation; and first-aid stations situated throughout the plant, where there are stretchers and canisters of first-aid materials, are some of the details which are designed to keep the accidents down to the minimum.

The MODERN HOSPITAL

Editorial Office . . . . . Conway Building, Chicago
Business Office . . . Metropolitan Building, St. Louis

EDITORS.

Henry M. Hurd . . . . . Fidelity Building, Baltimore
Frederic A. Washburn . Mass. General Hospital, Boston
Winford H. Smith . . Johns Hopkins Hospital, Baltimore
S. S. Goldwater . . . . Mt. Sinai Hospital, New York
W. L. Babcock . . . . . Grace Hospital, Detroit
John A. Hornsby . . . . . Conway Building, Chicago

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Medical Organization to Meet War Needs

Speculation as to the probable duration of the war is not profitable. In the opinion of many it is probable, and everybody will agree that it is possible, that the war may last a long time. The military preparations of the government, including its financial and industrial program, are designed to meet the requirements of a long war. Medical preparations have thus far been less thorough. In the medical field, the federal government has directed its efforts mainly to the obtainment of a sufficient number of medical officers, nurses, and hospital beds to satisfy the needs of the army during the continuance of hostilities and afterwards. These are matters of obvious military necessity which very properly have the right of way. In due time, however, the government must address its attention to the broader medical problems which either spring from or are accentuated by the war. What are some of these problems and how are they to be met?

It is of prime importance that an adequate supply of sanitariums, physicians, and nurses be provided to meet the needs of the army and of the civilian population as well. So far as physicians are concerned, this need has been repeatedly emphasized by various committees since, in drafting the first set of regulations interpreting and supplementing the Selective Service Law, the Provost Marshal General failed to announce a means by which the normal supply of medical graduates could be maintained. But the maintenance of a supply of medical graduates, sufficient in quality and quantity for national needs in peace times, is not the real problem; other needs have to be reckoned with, not alone in the army and navy, but in the national and local public health service, and among the civilian population. In so far as the expansion of existing facilities for the training of physicians and nurses may become necessary, the government will be called upon to provide the means for such expansion, for it is not likely, indeed it is hardly possible, that the people will make such provision for themselves without governmental direction or government aid.

Another problem, closely related to the one just mentioned, is that of making the most effective disposition of hospital interns, students of medicine, and students of public health, who are of draft age. This problem has been solved in part by recent rulings of the Surgeon General's office. Its solution has been facilitated by the voluntary speeding up of courses of study in certain colleges; but much more must be done in the way of modifying courses of study to meet war needs, and it is of the utmost importance that a government program covering this field be speedily formulated.

Again, preparations must be made to meet unusual conditions which may arise in any part of the country as a result of the transfer of physicians and nurses from civil to army life. It cannot be the purpose of the government to disregard such emergencies, any more than the government would be indifferent if a given locality, in consequence of the war, were deprived of its supply of food or fuel. Situations will inevitably arise that will result in great local distress, unless discounted by appropriate measures. We must be prepared to see medical institutions and physicians in civil life brought under government direction whenever and wherever necessary to insure adequate attention to the needs of the civilian population. In England, the latest official proposal along these lines calls for nothing less than the complete nationalization of the practice of medicine—a scheme which this country is hardly prepared as yet to adopt.

It is essential, also, that the government concern itself with measures for the protection of infants and children; that it provide adequate maternity care at least for the wives of the men who are called to the colors; that it make suitable provision for the treatment, in institutions or otherwise, of physically and mentally defective men who are rejected by the army; that it promote

rural sanitation, especially in the Southern states, not alone for the purpose of benefiting the population of those states, but with a view to increasing agricultural production; and that it frame and adopt a comprehensive program for the hygiene of war industries.

Stimulated by the war, the organization of medicine will advance rapidly during the coming year. A wide field of useful activity opens before the medical administrator. Radical changes in the relations between medical institutions and the federal government are foreshadowed.

S. S. GOLDWATER, M. D.

Headway Toward Standardization

By the time this number of THE MODERN HOSPITAL reaches its readers, many of them will have received a questionnaire from the American College of Surgeons. That questionnaire is a sign of "stop, look, and listen" to all hospitals, and, in fact, to the entire medical profession. It is the first step which directly concerns the hospitals in the plan of standardization undertaken by the College.

The first judgment which crowds here for expression on receipt of this questionnaire is this: All hospitals and all doctors should support heartily the project of the College. Each of us should help. The day of cliques and factions in medicine has gone by. That sort of thing belonged to the age before the great war. In this new age we are more broadminded, more kind, and more sane. What we want is results. In a splendid spirit the fact is that the American College of Surgeons today is not merely a society of surgeons for surgeons. It is a society of surgeons for the advance and betterment of the entire medical profession and of all facilities which make for the better care of sick people. Honest, thorough standardization of hospitals is the thing we have hoped for and struggled for during many years. Now it has come. We owe it loyal support.

THE MODERN HOSPITAL suggests that each hospital staff, which has not already done so, hold a meeting, the purpose of which is to consider the questionnaire of the College. There is a vast amount of hospital education in that questionnaire.

There are few hospitals in the country which would not profit by a review of its administration as outlined by these questions.

Most hospitals are already aware of the cooperation of the American Hospital Association and of the Catholic Hospital Association in this plan of standardization. But some few may ask, "Well, how comes it to be the business of the College to inquire into hospital affairs?"

To answer this question, first, the College is a responsible society of about four thousand surgeons. These surgeons, through their organization, make it their business to do anything within their power for the betterment of the practice of medicine and surgery, and the conditions involved in this practice. Such a purpose must include medicine as well as surgery. The surgeons believed they could accomplish more if organized. It is the old story of the flies and hornets. The hornets, by organization, are able to keep their house in order. They get things done. But the surgeons are more democratic than hornets. They are not out to sting.

Again, the College is engaged in the standardization of hospitals because it aims to include in its Fellowship all who possess practical scientific knowledge of medicine and surgery, together with honor, trustworthiness, and strong moral character. To determine on the fitness of candidates for Fellowship is a grave problem which involves an estimate of the candidate's training in the medical school and in the hospital as intern and assistant. The problem is further complicated by the fact that among hospitals there is wide discrepancy in the educational opportunities offered; there is confusion as to the value of all phases of these opportunities even among hospitals of like or comparable equipment. The regents of the College must therefore answer two questions: First, what are the actual standards in the practice of medicine and surgery among hospitals? Second, what is an acceptable standard in the practice of medicine and surgery among hospitals? This second question involves the larger question as to whether the standards among our best hospitals are too good for the humblest patients anywhere on this continent? The regents, therefore, take up hospital standardization as an obligation of their trust.

A second pertinent question which we might ask at this time is this: What is the policy of the College in its entire plan? Since the beginning of the College and its first announcement of entering the hospital field, the College has repeatedly stated that its aim is to be constructive—to be helpful to hospitals, to the profession, and to the public. Further, it has emphasized that the welfare of the patient, his convalescence and recovery, are at all times fundamental in its consideration of hospital efficiency. That is both a wise and an important decision.

If the College is to classify hospitals from the viewpoint of the patient, then it must obtain some definite measure of the success of hospitals from the patient's angle. It must determine a minimum standard of equipment, of organization, and of professional procedure, and, with this standard as

a gauge, proceed to classify hospitals. That is exactly the intent of the College. Further, the policy of the College is that the minimum standard be high enough to safeguard the interests of the patient and low enough to be at least within the reach of the majority of hospitals whose motives are creditable. The limits of such a standard cannot wisely be determined until a thorough analysis of hospital conditions, such as will be provided through the questionnaire, is at hand.

Obviously the standard now attained by some great hospitals with large endowment, research laboratories, and staffs of specialists is out of the reach of many small worthy institutions. At the other extreme is the standard of some hospitals, both large and small, which means in effect that the institutions are merely boarding houses, and that they are unworthy of the confidence and support of their respective communities. The College seeks a standard which lies between these extremes. It seeks to define what right conditions are for patients in terms of thoroughness of diagnoses with due laboratory facilities; of the continuity of the service of competent physicians and surgeons responsible for the treatment of patients; of the keeping of accurate case records with follow-up results; of cleanliness, etc. In general, failure on the part of the hospital to meet the minimum standard will be due to lack of effort and of organization rather than to lack of financial resources.

The questionnaire is the work of the Standards Committees of the College and of the General Hospital Committee of the College. Effort has been made to ask for no unnecessary data, and in so far as possible the questions have been asked with a view of minimum work on the part of hospitals. Most of the questions may be answered by figures and by *yes* or *no*. The character of the questionnaire is a pleasing indication of the thoroughness with which the College proceeds in the great task of standardization.

A Remarkable Sociological Experiment

If we had followed our first inclination, the title of this editorial would have read, "A Milestone in Social Progress," or something similar. We want to be conservative, however, and, since the Children's Clearing Bureau of New York, described on another page by Mr. Frank C. Brooke, has only recently been established, we are designating it as an "experiment."

What is there to focus attention on this institution for dealing with New York's dependent children? As will be seen by reference to Mr. Brooke's article, in the past the city of New York distributed the dependent children who were its charges in a more or less haphazard manner among the various children's homes or other private charities for the benefit of children. The effort is now being made through the Children's Clearing Bureau to ascertain the individual child's needs and to assign him to the particular institution best fitted to care for those needs. This is certainly laudable progress in charitable administrative methods, but, it may be thought, not of startling significance. Perhaps not, if this were all; but there is a feature connected with this bureau which is worthy of most serious attention and study.

Every child admitted to the Children's Clearing Bureau receives a thorough examination for every phase of his physical and mental being, and every remediable defect found receives correction, so that the child begins his new life at a level as near one hundred percent physical and mental perfection as is possible for him to attain. Think of it!

Perhaps it is not easy to grasp the full significance of this measure in a moment. In the first place, how very few human beings there are who have ever been examined, not merely to find out whether they had tuberculosis, or adenoids, or a broken bone, but in their totality, to find out just how near or far they come to being a perfect human being! Mr. Frank A. Manny, on another page of this issue, tells of a girl who was referred to the nutrition clinic. From her history it appeared that few children of her age had been examined so many times as she—for this, that, and the other specific defect. But, as each examining specialist was intent only on his own particular specialty, no one had paid any attention to the malnutrition which was undermining the child's whole being. No wonder that examination of candidates for the army show up so many hitherto unsuspected defects—some still remediable and others which perhaps would have been remediable if discovered earlier in life. Think what it would mean to our national efficiency if every child in the land could receive at least as thorough and comprehensive an examination as is given to army recruits and to these dependent New York children!

In the second place, we are told, every defect found in these children is corrected so far as this is possible. Each child is made as nearly perfect as he can be made. The possibilities of that idea are so big that we are almost afraid to talk about them. Of course, it is quite utopian to think about giving to all the rich, poor, and middle-class children in this country the advantages bestowed on these fortunate waifs of New York. But it is

pleasant, as a relief from the horrors of war, to let one's mind play idly with the idea.

Meanwhile, we wish to remark that Mr. Brooke's article will be found an extremely interesting one, and readers may profitably turn from it to Mr. Manny's article on "Nutrition Clinics and Classes."

A Cooperative Plan for Industrial Welfare Work

During the past four or five years many hundreds of industrial corporations have seriously turned their attention to methods for increasing the efficiency and improving the health and social condition of their employees. Many millions of dollars have been expended in the erection and equipment of special industrial hospitals, and some of the best social agents in the country have been studying methods by which to bring these industrial welfare departments up to the highest possible usefulness.

During the past year or more THE MODERN HOSPITAL has attempted to conduct a department in industrial welfare with a view to aiding the industrial world in health work among employees and in the standardization of hospital and social service. Until now nearly all the material published in this department has concerned the efforts of individual corporations to achieve something on their own account. Very much has been done through suggestions of one corporation that have been made use of by others, and there is no doubt that industrial welfare has gone forward by leaps and bounds during this past year.

In a final analysis, industrial corporations are not engaged in health work; at least, health is not presumed to be one of their products or assets, and as a rule corporations are obliged to employ someone properly equipped, mentally, morally, and physically, to handle their work in this field. If the right sort of conditions can be established here, would it not be better for many of these corporations, especially those in the largest cities and employing very large numbers of people, to get together in a cooperative way and do their social welfare work in common? And if the cooperative plan itself is a good one here, would it not be better to assign that cooperative work to an organization whose personnel, organization, and administration are equipped in every way to deal with health and social problems?

In his series of articles on the standardization of hospitals, Dr. Hornsby takes up industrial hospitals in this month's installment. As will be seen, Dr. Hornsby believes that the cooperative plan is probably the solution of the problem which will be favored by the future. In this connection we wish to call attention to an article by Mr. Barrow B. Lyons, financial executive of the Northeastern Hospital of Philadelphia, which appeared last October. The cooperative plan seems to have been well worked out in this hospital.

One of our earliest publications in the Industrial Welfare Department concerned such a cooperative arrangement between some large corporations in Detroit. That plan is working well, and the cooperative hospital built there is doing a wonderfully fine work, but in Mr. Lyons' article we have a hospital already organized, with medical staff, interns, nursing corps, and trained department heads, and, best of all, a thoroughly equipped hospital in its scientific departments that may be utilized for the benefit of the industrial institutions of the community. It appears that in the Northeastern Hospital the plan has been worked out to the finest detail, and we would urge corporation managers and social service agents to study the Philadelphia project by reading Mr. Lyons' paper.

The Opportunity of the Small-Hospital Superintendent

Hospital men and women stand today at the parting of the ways. We have said something of the kind on previous occasions; we want to emphasize it now. One way leads to higher levels of efficiency and success than have ever been attained before; the other leads to the dust-heap. There is no middle way henceforward.

A hospital superintendency has too often meant, in the past, not a profession, but a job. It was a job awarded, not to the man or woman best fitted by experience and professional attainments, but to the politician with the strongest pull, to the broken-down physician and professional failure who has a brother-in-law on the board of directors, or to the deserving and penniless widow who is a perfect lady and doesn't know how to do anything except to keep house, but who surely ought to be able to run a hospital. That has been our American way. Several of our American ways are to be changed.

After the war is over, men and women will come back from "over there" with vision sharpened to the deadly dangers of inefficiency. Here, those dangers are spread thin over long periods of time, and we have forgotten that they exist; there, inefficiency means not slow, but swift, destruction. Those who come back will bring with them new standards of values, and bluff and good intentions will no longer be accepted as the equivalents of efficiency.

What does this mean to the small-hospital su-

perintendent? It means, Prepare to move. You can't simply hang on. If you have good professional qualifications, if you have kept yourself up to date by attending conventions, reading, coming into contact with the best minds in the profession, if you have let your colleagues and the world know that you are alive by publishing the results of your experience from time to time, then prepare to move onward and upward to wider fields and higher responsibilities. If not, then prepare to move down and out. Opportunity is here—with gifts in one hand and a ticket to oblivion in the other. Choose!

The Personal Touch in the Hospital

The hero of an old tale, on the way to put his fortunes to the test, passed through a room inscribed on three sides: "Be bold," "Be bold," "Be bold," and on the fourth, "Be not too bold." The antechamber to hospital success might well be inscribed on three sides, "Be efficient," "Be efficient," "Be efficient," and on the fourth, "Be not inhumanly efficient."

The best interpreters of the maxim on the fourth wall should be found among small-hospital superintendents. It is easier to remember that a hospital is not merely a machine for grinding out cures when the institution is small enough so that the staff members do not lose all sense of personal relationship. Then, too, the superintendent of the small hospital is frequently or generally a woman, who traditionally should be better able than a man to maintain a homelike atmosphere within institutional walls. If there is such an atmosphere in the hospital, it nearly always radiates from the superintendent's rooms.

We know some superintendents whose rooms in the hospital are the "holy of holies" that no one would dare to enter except when summoned on the carpet; and, again, we know a hospital with another kind of superintendent, whose rooms, with their attractive pictures and new books spread invitingly about, have a friendly welcome to all comers. A real woman's apartment this, as you cannot help but perceive, for there are always tea things about, and, in a mysterious corner of the bookcase, a jar of homemade cookies and another of marmalade. But what counts most of all is the knowledge, shared by all in the hospital, that here abides a friend and counselor as well as a superior officer. Many a knotty problem has been unraveled over the teacups in this little home corner, and many a hospital worker has found here strength and courage after a trying day. And even the little probationer who receives a yellow envelope with dread news from home knows that she can enter and have her cry out on some one's shoulder.

Do you smile at this sketch of the feminized hospital, efficient friend? Know, then, that, as oil is to the efficiency of a machine, so is personal kindliness to the efficiency of an institution. Devitalized, dehumanized—shall we say Prussianized?—efficiency is only half efficiency where human beings are concerned. Let us by all means uphold ethics, let us maintain discipline, let us strive for efficiency; but let us not forget the personal touch that makes all these things vital.

A Problem in Conservation

The war, by drafting into the regular or reserve army medical service unprecedented numbers of physicians, has thrown a staggering burden on the shoulders of those who remain. How can the depleted ranks of the civilian medical profession care for the medical needs of the civilian population? Manifestly they can do it only on condition that their efforts are expended to the best possible advantage. In the rural districts, for instance, if we continue to allow seriously sick persons to remain in their remote homes, some of them will suffer neglect simply because it is not humanly possible for the man whose days and nights are already full to the brim of this kind of practice to take over the territory previously covered by his colleague now at the front. This means that more and more the patient must be brought to the doctor instead of the doctor going to the patient as heretofore. In other words, it means more hospitals—especially more small hospitals.

But there are many communities that cannot afford even the least expensive form of new building. Almost any kind of new construction will cost twenty-five cents per cubic foot, or approximately fifteen hundred dollars per bed; for a thirty-bed hospital this would involve an expenditure of thirty thousand dollars, which is out of the question for many poor communities. With the price of building materials what it is, and funds for public improvements harder to procure than ever before, how are we to obtain new hospitals? One answer—probably *the* answer—to this question is the converted dwelling house for hospital use. In almost every town there is a fine old home or two available for hospital purposes, and the owner, if a wealthy absentee, may be glad to present his unused residence to his home town for a hospital. Generally, such a residence can be converted into a very good hospital for not more than 10 percent of what a new building would cost. And, if it is a well-run, serviceable

hospital, it will be far easier to get money for a second and more expensive unit than it was for the first.

If anyone has a better answer to present, he is the one from whom we want to hear, and that right speedily. One thing is certain: as a matter of war-time morale, if nothing more, we cannot allow the health of the civilian population to suffer. Nothing will so speedily and surely detract from our war-time efficiency as permitting disease to spread among the population. We must find a way to meet the emergency.

For this reason we regard Mr. Edward F. Stevens' paper, "Remodeling a Dwelling House into a Hospital," published elsewhere in this issue, as a particularly important one just at this time. The dwelling house the conversion of which Mr. Stevens so well describes became a hospital many years before the outbreak of the war, but the publication of this paper has a peculiar timeliness right now. Mr. Stevens has worked out the problem so skillfully through two stages of growth that his article will repay careful study, and we commend it to the attention of those communities in which a hospital, though a necessity, may be difficult to obtain.

The Small-Hospital Number

We believe that this month's MODERN HOSPITAL will be found a particularly interesting and practical number. We can say this without boasting, for the credit belongs to our contributors, most of them administrators of small hospitals. It is very encouraging to see that, among the able superintendents of small hospitals, there are so many who can write nearly as well as they can run a hospital, and in these days it is becoming nearly as necessary to be able to do the one thing as the other. We remarked in one of the preceding editorials that this is the day of opportunity for the small-hospital superintendent, but that it will be necessary to move upward and onward, or down and out; the days of the superintendent who is merely hanging onto a job are numbered. Now, the forward-looking and onward-moving man and woman will want to share his or her experience with others, to give the profession the benefit of the individual's achievements, just as is done in every other progressive profession. Moreover, it is becoming necessary for hospital superintendents who have a regard for their own future not to hide their lights under bushels. This is going to be a mighty busy world, not only during the war, but for many a long year thereafter; it is going to be too busy to hunt up the man or woman who is too busy to let the world know that he or she is alive. Some new leaders are bound to develop in the profession during these trying times. We believe that it will be safe for anyone who wants to know the names of some of these future leaders to keep an eye on the contributors to this and future issues of THE MODERN HOSPITAL.

Cooking as a Vocation for Handicapped Men

One of the pressing necessities of the day is the need to find really useful work which may be advantageously done by handicapped workers. In January we published a most interesting account of one measure to meet this demand, namely, the workroom for the blind in the establishment of the Crocker-Wheeler Company, manufacturers of electrical apparatus. This month we publish an article in which Dr. John F. Bresnahan, assistant resident physician at the Massachusetts General Hospital, makes a suggestion which appears to be of great timely and practical value. The demand for men cooks in such places as lumber camps, construction camps, fishing vessels, and night lunch wagons is greater than the supply. Employment is steady and the wages are good, but the men obtainable are untrained and usually of unsteady habits, perhaps addicted to alcohol. Why, asks Dr. Bresnahan, should not handicapped men be trained for such positions by simple instruction in the elementary principles of cooking, food values, and culinary cleanliness? This suggestion has a double value. We are learning that the cook is too important a person to be left untrained. The careless, wasteful, unclean cook, like the quack doctor, is a menace to private health and public wealth. Dr. Bresnahan's plan promises not only to provide occupation for a number of handicapped men, but also to improve the supply of cooks. We hope to hear before long that classes in cookery for handicapped men are being offered in one or more larger cities.

County tuberculosis hospitals are now in course of construction or soon to be erected in 18 counties in the state of New York, under a state law requiring that every county having upward of 35,000 population and not already maintaining a tuberculosis hospital shall establish such an institution and have it ready for the reception of patients by July 1, 1918. The counties that have already taken definite steps toward complying with the law are: Rensselaer, Niagara, Steuben, Otsego, Rockland, Broome, Chautauqua, Columbia, Herkimer, Livingston, Wayne, Nassau, Allegany, St. Lawrence, Madison, Delaware, Clinton and Genesee. Franklin and Sullivan counties are expected to take action on the hospital matter at an early date. Washington county questioned the constitutionality of the law, but its counsel has lately given an opinion that the state legislature did not exceed its authority in requiring the counties to establish hospitals.

HOW THE SMALL HOSPITAL MAY GIVE HIGH-GRADE SERVICE

Growth of the Hospital Field in Kansas—How to Grade Charges—Graduate Versus Pupil Nurses

BY F. W. SHELTON, M. D., Independence, Kan.

The past decade has witnessed the most extensive establishment of hospitals that this country has ever known. Physicians as well as the laity of small cities and towns have recognized the great benefits to be derived by hospital treatment of a large number of cases that would be deprived of such care, were it necessary for them to be removed to the large hospitals in distant cities. This has been especially true in our own state, no less than fifty hospitals having been established in Kansas the past ten years.

This rapid development of a comparatively new enterprise, enlisting with it the services of many new and in some cases almost inexperienced persons, has involved, as a result, many errors in administration, which must accompany the pioneer in the establishment of any new business. The administration of the small hospital is considered as being different from that of the larger institutions, as I think it is conceded that, for the most part, the problems of the two are very different, and the suggestions which follow refer more to the needs of the smaller hospital.

There are almost no available hospital statistics, or data, regarding the administration of the numerous institutions in the state. Great benefit should accrue from making available for study, material from all the institutions within the state, upon such subjects as staffs, superintendents, training schools, interns, keeping records and accounts, buying, laboratory, laundry, etc., from which deductions and general averages may be computed for future reference in the conduct of the various departments of each institution. Many hospitals, no doubt, have neglected making these deductions from the material at their disposal in their own institution, and while checking up each department in compiling this information they will no doubt discover errors which they can correct, and the correction of which may add greatly to their economical efficiency.

Efficiency in service and economy in administration must depend upon systematic cooperation of all departments. Case records, showing a careful study of each, giving history, symptoms, clinical findings, laboratory and special examinations made, diagnosis, treatment, and results, must be carefully compiled and placed on file for reference. Special attention that each patient's chart is a careful and true record of their condition and treatment must not be overlooked. To accomplish this, each nurse in service must be instructed in minute detail concerning the importance of care in making chart records, and no excuse should be tolerated for making false or careless entries. No other single thing will accomplish as much toward insuring good service to each patient as a perfect chart which records their actual condition and treatment.

Careful and efficient nursing, with the present high cost of all materials used, and employees' wages necessary, cannot long be furnished, even with gifts and endowments which some may have, unless the management at all times respect the per-capita cost of such service. If good and efficient hospital service is to continue, the charges to each patient must be based upon an established per-capita rate, plus any percentage that may be made necessary by marked advance in cost of material used. Charges for room must depend upon cost of food products, heat, ice, electricity, and incidental expenses, in addition to cost of nursing, and extra charges should be made for operating room service, hydrotherapeutic treatments, and expensive special articles of diet. Care should be taken in assigning rooms and making rates, patients being given, as far as possible, rooms that are in keeping with their probable demand for time and special attention. Patients occupying cheaper rooms usually receive less special nursing, less in special diets, and less in all extras. Charges for all extras should be made on a basis which will allow for loss, shrinkage, interest on money invested in special apparatus, and time spent in administration, in addition to a fair profit over cost of material used. In this way the hospital is able to increase its earnings from those who are able to afford these extras, and make the average necessary to be maintained without loss in operation, and still be able to furnish satisfactory or even excellent service to those who are able to pay only moderate fees, and to include a certain number of necessary charity cases.

The question of credit is one which confronts the management of hospitals very frequently and one which is not always easy to handle. As hospital business is not for profit, and as, in fact, very few hospitals make operating expenses, credit should not be extended. Hospitals, like hotels, should adhere strictly to business upon a cash basis, and soon the public would cease to expect to receive service on account. We may be unable to avoid doing a certain amount of charity work, and a large percentage of the work may necessarily be at a rate which is barely sufficient to cover the actual cost of material used, but, when a charge is to be made at all, we can exact that the payment be made by the week in advance. Those who are unable to secure funds in an emergency to assist them with necessary hospital fees will seldom be able to settle the account later, and one of the poorest assets that a hospital can have is an unsettled account, which usually is sufficient reason for the debtor, in trying to justify himself for not paying it, to complain of the service he received, and thus become a knocker instead of a booster.

A few years ago I attempted to collect an account of this kind more than a year after service had been rendered a patient who for three weeks had received treatment for severe gastritis and had been able to retain but little food taken by mouth during her stay in the hospital. The excuse given by the husband of this patient for not paying the account was that his wife had been so starved while in the hospital that after her return home it had cost him a hundred dollars for extra food in order to get her in as good condition as she was before entering the hospital. This incident will serve to illustrate to what extremes those owing an account will go in trying to find an excuse for not settling, after the service has been rendered and they have had time enough to forget how badly they had been in need of relief.

Care must be exercised in the selection and control of employees, first, as to their fitness for the work expected of them. Preference should be given first, to those who have been previously in the employ of the institution and have given satisfactory service; next, to those who have had the most experience elsewhere in the same kind of work as that for which they are seeking employment. Any special adaptability for the position which they occupy should be recognized and suggestions from them as to improved methods for handling their work should be encouraged. An inexperienced, incapable employee is expensive in any department, and special talent and service from an employee should be recognized by commensurate remunera-

tion. Long terms of satisfactory service should be encouraged by increase in compensation in excess of the usual salary for the position they occupy. I believe it is economy to spend money to retain the service of efficient and trusted employees rather than tolerate the waste and poor service which results in frequent changes in help.

The question of the nurses' training school as against the employment of graduate nurses for general duty in the small hospital is one of importance and one about which there seems to be considerable difference of opinion. Only recently we read in one of the leading hospital magazines an editorial in which it was advised that hospitals of thirty beds and less should not attempt to conduct a training school, but should employ graduate nurses for general duty. I venture the assertion that this recommendation came from one with slight experience in the conduct of a small hospital. To be sure, the perplexities that arise in the management of a training school in the small institution are many and require the judgment which comes from experience to meet them, but I believe that these are of less consequence to efficient service than those which result from the necessity of frequent changes, incompetent graduate nurses available for general duty, and the lack of team-work and cooperation that is unavoidable where graduate nurses are employed. My experience of more than ten years in the management of a twenty-bed hospital has been that most of the graduate nurses whom one can employ for general duty in a small institution have become so adherent to certain methods that cooperation is difficult and friction is often unavoidable. I prefer, for service, nurses in training more than one year to the average graduate nurse who can be secured for general duty. The nurse in training is more interested in her work and in the service rendered by the institution of which she is a part. An economical element which enters into this question also is the income that may be derived for the institution by the employment of senior nurses for special duty on cases in the hospital. The matter of the benefits to be derived by the nurse in training in the small hospital as compared to those in the larger institutions will not be discussed here, as it would require too much time, and I have already presented my views on this subject in a previous paper before the Kansas Hospital Association.

Efficient and economical hospital service, satisfactory both to the board of directors and to the patients, and the solution of a large portion of the problems which present themselves to the hospital management must depend upon the superintendent. In the smaller institutions, where the responsibility of the hospital management and the training and control of the nurses must be combined and the entire responsibility placed upon one person, it is quite necessary that this person, to be entirely successful, shall have had experience in several lines of work. One of the first requirements of an ideal superintendent is her ability to meet, on a level, all classes of individuals, as patients, their family and friends, and those who have other business relations with the hospital, to satisfy their wishes in a courteous businesslike manner, to be able to say "no" when necessity requires, and still not lose friends for the institution. We might call this "business tact."

The superintendent must be able to organize her nursing force and other employees of the institution in such a manner that each one will have a thorough understanding of just what is expected of him and to appreciate the importance of cooperation in order that the institution may render efficient and economical service. This cannot be accomplished in a domineering way; the superintendent must always manifest a sympathetic manner with a kindly disposition, showing each one her willingness to assist over hard places, and not being too harshly critical of errors that are made. Each one under her direction should feel at all times perfect freedom in coming to her with any question regarding their work or reporting any errors they may have made, and be assured that she will not be harsh in her condemnation and that they will receive from her the kindly assistance and wholesome advice so often necessary to tide one over discouraging places in the training. From nurses in training too much must not be taken for granted by the superintendent. Very often it is difficult to explain satisfactorily just how a certain duty is to be accomplished, when a practical demonstration in their presence immediately removes any question that may exist. Again, the superintendent must direct the pupils, sometimes repeatedly, through some difficult treatment, in order that they may not develop improper technic.

One who is not so sensitive to her surroundings that she will not be immediately impressed by disorder is not of a temperament to make the best superintendent. An untidy room, a dissatisfied patient, an incomplete or unsatisfactory chart, loud or unusual noises, improper heat or ventilation, a leak in a sterilizer or water line—in fact, any evidence of incompetence, inefficiency, carelessness or waste, should not escape her scrutiny in her regular rounds of the institution. The item of waste alone can cost the hospital more than the salary of a good superintendent, unless she is alert and competent and attentive to leaks in the various departments. Salary alone, regardless of amount. is not sufficient incentive to induce efficient service on the part of a superintendent. She must be really in sympathy with her work and feel a personal interest in giving efficient and economical service and in the success of the institution, if she is to be rated as an ideal superintendent. When this is evident in the successful and economical administration, officers of the institution will recognize her value and her compensation will increase accordingly.

Allow me to repeat in closing that any hospital, regardless of size, whose ideal is to furnish efficient and satisfactory service, will find the solution of most of the perplexing problems and become successful, both in efficiency and financially, through the untiring and earnest efforts of a capable and conscientious superintendent, and without such a superintendent no hospital, regardless of its ideals or financial support, can be successful.

The Individuality of Mentally Defective Persons*

BY HELEN MACMURCHY, M. D., Inspector of Auxiliary Classes, Department of Education, Ontario, Canada.

It is the highest work of the parent or the teacher to train the younger generation for noble and independent life. Parental and educational control is intended, not as an end in itself, but as a preparation for the time when self-control shall take its place. But self-control and independent life are not for mental defectives, either in their own best interests, or in the best interests of the family, the community, and the nation. Common sense forbids it. In the nature of things it cannot be. Mental defectives may be nearly or quite self-supporting; they can never be self-controlling or self-directing, except in a childish way, and they never can be the masters of their own fate, except at the cost of disaster and ruin to themselves and others—disaster that affects future generations as well as the present generation, and that tends to undermine, as far as it goes, the security of the homes and the nation

*Read before the American Association for the Study of the Feeble-minded.

concerned. Mental defectives are permanent children. They never put away childish things. They are no wiser at thirty or forty than they were at half that age. There is no cure for mental defect. To try to train a mentally defective person for an independent life is to attempt the impossible—to do no good and much harm.

We all agree about this. There is no difference of opinion. Provided always that we have made sure that the person in question is mentally defective, that there is no mistake in the diagnosis, there can be no two opinions as to the statements now made. Indeed, these conclusions are self-evident—and they are only stated here as a starting point.

But now that we are all assembled at the starting post, perhaps we might reflect that there is no starting post so true and straight that it may not lead us into error by the shadow that it casts, as it were. Mental defectives are not intended or adapted or equipped for independent and self-directing life. True. But that does not mean that it is impossible for any one of them to have quite an interesting personality, and a mind which is a source of enjoyment to the possessor and to you and me, who may have the privilege of their friendship and of frequent association with them.

There may be a continent in that poor brain which but awaits Columbus. There may be an island there reckoned by us not indispensable, which yet may really be as useful as Heligoland has been found by a certain enemy nation.

Dr. Charles Bernstein, of Rome State Custodial Asylum, showed, at a recent meeting of the New York State Medical Association, one of his "boys" who had been in the institution ten to twelve years before anyone took much notice of him. His mental age was about three years or less. Then one day somebody made the discovery that he was a very interesting person. He could do something which you and I cannot do, never could do, and probably never will be able to do. He could tell you in a moment or two on what day of the week any given date, past or future, falls! There he stood, before the members of the New York State Medical Association, repeating in simple slurring speech, "What-a- day-a- was-a- the twenty-first of May, 1901, What-a- day-a- Why-a- it was-a- Tuesday."

What corner of that poor darkened brain was working so accurately? What secret power had he that we have lost or never possessed? What scientific explanation is there of that mental calculation—and could it not be used in some way for the possessor's benefit and for the benefit of others? All these and some other interesting questions remain for some genius among us to answer.

By far the most promising field in which to search for the hidden secrets of mental action is the study of the simple and rudimentary working of the minds of those whose brains have not developed as far as that very complex thing commonly known as the "average" or "normal" brain. And while we are waiting for the genius, has none of us any simple common-sense suggestion to make as to the use to which such an endowment might be put? He can "shew us a thing," to use the language of Scripture. If we only knew how he does it, we should be wiser than we are at present!

It may be objected by some friend that the accomplishment of Dr. Bernstein's boy is not a useful one. Friend, how dost thou know that it is not useful? It is not so long since those who tried to make flying machines were considered madder than any March hare. Now we call these wild ideas, materialized in metal, wood, and cloth, "aeroplanes," "hydroplanes," and other grand names, consider them indispensable, and depend very much upon them, among other things, to secure that victory without which it is likely enough that civilization may perish from the earth for an aeon or two. No atom of truth, however small or mad it seems, considered apart, is to be despised. It may be the lost link that mankind has long looked for, and never found before.

But these individual powers, or gifts, or endowments, or peculiarities, or oddities, or differences, or whatever else one has a mind to call them, are interesting in the concrete, in the person, as well as in the abstract, before and after the aviator flies, as it were.

In one of his essays, William James remarks on the fact that the wisest things he had ever heard were most of them remarks from some unknown individual, often engaged in some humble employment and without any educational and other advantages. He gives as an instance a remark made by a man sent to his house to "sort" (as the Scotch would say), a fireplace, about which something had gone wrong. Mr. James fell into conversation with him, and thought him very intelligent. In the course of the conversation the workman happened to say, "There is very little difference between one person and another when you get down to the bottom, *but that little is very important.*"

The views of Mr. James as to the wise opinion of comparatively humble persons have a double application to the point now under discussion. In the first place, mentally defective persons do sometimes make wise remarks. One of my best boys, who was very near the border line, almost, but not quite able to manage in the world, passed as normal until he met the multiplication table. Never before had his mother or any of the family felt anxious about him. Every evening, all that winter, she worked and worked to put him over the stile, but it proved an insuperable barrier. He could not learn the multiplication table. Finally, feeling that her efforts were unavailing, he tried to comfort his mother, "Never mind, mother," said he, "I think the arithmetic corner of my brain was never finished."

Think of that! Has any champion for the feeble-minded, however eminent, ever put the case better? Other instances of wise remarks will undoubtedly occur to every experienced worker among mental defectives.

In the second place it is these very "little differences between one person and another when you come down to the bottom," that are the stuff of which personality is made, and lend to it that nameless charm which is amongst the most enduring and powerful of human influences.

In one "almost," to borrow Victor Hugo's name for our poor friends, the feeble-minded, you find a power of steady loyalty and faithfulness that many a normal person lacks. These powers are among the highest and sweetest in personality.

In another "almost" you shall discern that instinctive and infallible first-sight knowledge of character that is said to be the special prerogative of dogs and children. In the township of Pickering, near this city, there lived for many years in a hospitable farmhouse a certain "Jimmy," and I have heard one of the farm ladies say that when a stranger came to these parts, no one ever thought of troubling much about his character. All they had to do was to ask "Jimmy" what he thought of the man. Like all oracles, Jimmy took a little time and sometimes replied in parables, but it was the universal opinion, all the same, that Jimmy had never been known to make a mistake in such cases.

But the most important thing is the undiscovered gifts. They are there. There is no human being who does not carry to the grave great undiscovered powers and possi-

bilities. The injustices of life crowd them out. The soil is fertile and the seed fell there, but the birds of the air, unhappily, carried off the seed and devoured it, and it never grew. And life is too short. We have no time to bring out what is in us. We can only finish a sample or two! "Man's reach must exceed his grasp, or what is Heaven for?"

No one has the large-heartedness to dig down to the bottom of us and find the treasure, and tell us what to do with it, and keep on believing in us till that belief is justified. The powers were there.

> "Some mute inglorious Milton here may rest,
> Some Cromwell, guiltless of his country's blood."

What is thus true of human nature in general is true of mentally defective persons. Hence the wisdom of the modern methods pursued at Starcross and Sandlebridge and Earlswood in England, at Waverley and Vineland, and all other of our best training schools, to look for the powers of the inmates until we find them. The voice and musical capacity of every inmate at Waverley is tested on admission. He or she may have some musical endowment. This is a fine thing to do—to look for an endowment. At Starcross some girls who were so feeble-minded that they scarcely possessed the power of speech have finally learned to make beautiful Honiton lace and so become much happier and almost self-supporting.

Mentally defective persons must be tried at this and that and the other occupation until we discover their gifts. Their opportunities must be multiplied. The chamber of their minds is such a tiny place that they are very soon "bored," and find it hard to "turn round in their minds." But the gifts are there. We have to discover them. Dr. Bernstein's boy was at Rome State Custodial Asylum for ten or twelve years before anyone discovered his "peculiar genius."

We are for ever and a day making this mistake of overlooking and undervaluing each other's gifts and possibilities. They are there, but we do not see them. We do not get them into focus. But the voyage of discovery has often proved very profitable in the history of the world. It will be equally profitable in the history of the care and training of mental defectives.

A VERY SMALL COMMUNITY HOSPITAL

Lexington, Miss., Shows What Can Be Done in a Small, Poor Community, and Gives the Figures

There is a pretty general feeling in this country that every community of any considerable size ought to have a hospital of its own. We are not all agreed as to the minimum size, character, and wealth of the community that can afford the luxury of a hospital; it is refreshing, therefore, that we are able to report on this subject through the medium of some correspondence with Dr. L. S. Rogers, superintendent of the Mississippi State Hospital at Jackson, who was largely responsible for the establishment of the little home-grown hospital at Lexington, in that state. Volumes of comment could not add to this human-interest story; hence we let it be told in the following two letters:

To the Editor of THE MODERN HOSPITAL:

Some time in the early part of last year, I wrote you in regard to the feasibility of the establishment of a community hospital in small towns of fifteen hundred or more inhabitants. I received a very favorable reply from you on the subject, with the statement that you intended to publish a series of articles in THE MODERN HOSPITAL on this general subject.

I presented the community hospital proposition to a meeting of the Holmes County Medical Association in Lexington, Miss. Lexington is a thriving little country town of about twenty-five hundred inhabitants, and is the county seat of Holmes County. The physicians and the people of the town took up the proposition very readily. All the churches of the town joined in, and each denomination furnished a ward. Some individuals furnished rooms. The Board of Supervisors of the county gave $50 a month to help pay the current expenses and to have their sick from the county poorhouse treated.

Each community will have to modify its organization to fit local conditions. In the organization of this community hospital each denomination, The King's Daughters, and the county had a director. The Catholics and Jewish people joined earnestly in the work. Each physician attends to his own patients in this hospital and collects his fee as in private practice. I feel sure this is one of the best ways for small towns and communities to get much-needed hospital facilities.

Should the report of this community hospital be of sufficient interest and you think it will be of benefit to small communities in aiding and encouraging them to build small community hospitals, I shall be glad for you to publish this in your valuable journal. I am enclosing a very interesting report from Rev. G. T. Gillespie, who is president of the board of directors. I hope you will embody his report in this communication.

L. S. ROGERS,
Superintendent Mississippi State Hospital, Jackson, Miss.

REV. DR. GILLESPIE'S REPORT

Dear Doctor Rogers:

I have your letter of the fifth asking for a general report of the work done in our community hospital. Replying to your request, I shall endeavor to give you the facts, and you may draw your own deductions.

We have rented a house of ten rooms for $20 a month. We had to spend considerable money in repairing and painting the interior to fit it for our purposes. We have equipped four private rooms of one bed each, two wards of two beds each, operating-room, reception-room, dining-room and kitchen; in addition we have fitted up an annex having three beds to serve as a ward for colored patients, making in all a hospital of eleven beds. The total amount expended for equipment and refitting the building has been approximately a thousand dollars, or, to be exact, $997.52. Several of the rooms have been furnished with chairs, tables, etc., by various church societies and individuals, of which no account has been taken in estimating the cost of equipment. Other donations of linen, silverware, utensils, etc., have been left out of the estimate. We could hardly say what would be the value of these various gifts; possibly $250 in all.

We have raised in cash, by solicitation and voluntary subscription, to date, $1,074.90. We are hoping to push the fund up to $1,500 before we end the campaign. Funds are still slowly coming in. We have one bed devoted to emergency charity cases, in consideration for which the board of supervisors allows us $50 a month, if we need that much to meet operating expenses.

We began operation October, 1916. The receipts have been as follows: October, $190; November, $101.50; December, $65.45; January, $119.95. The operating expense has averaged about $200 per month, including nurses and matron's salaries. With the $50 each month from the county, we have had a deficit of from $40 to $50 a month on an average. We had counted on this for the first year, and a part of the $1,500 to be raised was to be used as a sinking fund to meet the deficit in the months when expenses exceed income.

The report for January showed eleven patients treated, four operations, one charity patient, one death. Dr. Darrington, from Yazoo City, has performed two operations in the hospital, both highly successful. Dr. G. G. Ashe, and Dr. R. M. Stephenson, local surgeons, have done most of the other work with the assistance of the other physicians. Successful operations for appendicitis, gallstone, tumors, diseased ovaries, and various other maladies, have been performed.

We employ one graduate nurse, salary $50; one nurse in training, allowance $8; one matron, salary $50; one cook, wages $6 per month; one porter, wages $12 per month We have a good milch cow and a garden-plot, both of which will cut expenses in the summer.

Our rates are $2 a day for private room, $1.50 for bed

in white ward; $1 a day in colored ward; $3 for use of operating-room for major operations, $1 for minor; $3 a day for special nurse; a special arrangement for feeble persons of $40 a month.

Those who have been treated at the hospital are unanimous in its praise. The people generally consider it a real benefit to the community, and the doctors encourage all available patients to go to the local hospital.

With grateful acknowledgment of your personal interest and assistance in making the enterprise a success, I beg to remain,

G. T. GILLESPIE,
President of Board.

A SMALL SANATORIUM FOR THE TUBERCULOUS

Seclusion of the Country on Manhattan Island, Fifteen Minutes From the Subway—Dwelling Houses Successfully Adapted to Hospital Uses

BY EDWARD H. CLEVELAND, M. D., Superintendent of the Hospital and House of Rest for Consumptives, Bolton Road, Inwood-on-the-Hudson, New York.

The Hospital and House of Rest for Consumptives is ideally situated on a high wooded hill overlooking the Hudson River. Its surroundings are distinctly rural, with the quiet and seclusion of the country, and yet we are on Manhattan Island, only a quarter hour from the subway, and hardly forty minutes from the Grand Central terminal.

Two large, substantial dwellings have been admirably adapted to hospital uses. These are connected by a covered way on the second floor, including nurses' office and serving room. One building has the office, chapel, assembly room or parlors, and store rooms on the ground floor, all directly accessible. The other building, constructed originally on a similar plan, with large entrance hall and wide stairway, has the library, dining room for patients, dining room for nurses, and kitchen and serving rooms on the ground floor. Spacious porches on the two floors and on the sides of the houses, as well as on the front, screened in summer and adorned with flower boxes, encourage the outdoor life. These porches have beds for night use and steamer chairs for day use. The men patients who must be in bed part of the day are in the north building, and the women of like condition in the south building.

In addition, we have tents with raised wooden floors, cottages with removable windows or walls, bungalows with outdoor porches, a completely equipped children's department with a cosy little school house, a house for the superintendent, steam laundry, boiler and engine rooms, barn and garage, greenhouse, flower gardens, and a well-kept vegetable garden. There is a tennis court, and plenty of grassy lawn space under the shade of noble old trees.

We are near enough to the city to have our provisions and other supplies delivered daily in response to telephone orders, and the family life of the small sanatorium is carried on happily enough without inconvenience. Friends of the patients can come to see them any day from 2 to 5 p. m., and those of us who are able have two days every month to go to the city.

Mail is delivered four times a day, and we get daily papers at an early hour. Thus the busy life of town is held at arm's length.

We meet our nursing problem by having capable, motherly young women, not necessarily graduate nurses, but practical nurses, placed in charge of the various departments, under the daily supervision of a head nurse, who shares with the matron certain definitely outlined responsibilities related to details of administration. These two officers confer with the superintendent whenever they desire or he requests such a conference. Two of these officers are always on the ground.

The question of household help is as difficult here as elsewhere. We have pursued a system of trying out, in all of our subordinate positions, and having found by adequate probation a skillful and loyal worker, we are fortunately able to pay her sufficient to make it an object for her to remain on our staff. By this method we have reduced the number of changes ordinarily incident to this branch of our work and thus maintained a higher standard of efficiency in the work itself, on which so much depends in the daily life of the institution.

Our program of work is planned and supervised by an experienced matron, with a genius for keeping track of the important things, both great and small. At present the capacity of the hospital is about seventy-five, including ten children, aged from 3 to 10 years. They have a happy life, and are rosy-cheeked and smiling. Everything is kept spick and span around the house and grounds all the time, for we never know beforehand when the members of the board of trustees or of the Ladies' Auxiliary may drop in to inspect the hospital. This plan has an excellent effect in keeping up the standard of neatness and order.

We have planned an important economy in replacing the kitchen range, a very large one, which requires a large outlay in coal, by the installation of two gas ranges, with which high degrees of heat may be had promptly and as promptly dispensed with.

The views and vistas of river and hill and forest here are lovely beyond anything near the metropolis. Before long we shall have hundreds and hundreds of beautiful roses in bloom. Our children enjoy walks in the woods and bring home wild flowers. There is an unusual degree of family feeling about the place, which we try to cultivate.

After 8 p. m. "all is quiet on the Potomac," and the hoarse roar of the great city is faint and far away. The Angelus bell at the convent school on the hilltop tells the hours and quarter-hours, and we hear at times the "tong, tong" of the Englewood ferry-boat. Early mornings the birds wake us, and by and by the deep-booming whistle of the day-boat announces the approach of Hendrick Hudson on his northward journey.

Then, too, we do not forget that this property is worth several dollars more than the trustees paid for it some twenty years ago. This consideration is one that deserves to be borne in mind in locating any institution, more especially one designed to do work for suffering humanity. This hospital has been offered to the Federal Government for the use of soldiers and sailors when desired.

Rehabilitation of Wounded Belgian Soldiers

Belgian soldiers discharged from the military hospitals are sent to a little town, Notre Dame de la Mer, built for their use, where they receive training intended to fit them for a return to civil life. Buildings, decorations, furnishing, planning, sewerage, etc., are all the work of the Belgians, according to an article in the *Royal Prince Albert Hospital Gazette*. The school for soldiers is known as the Port Villez Institute. The subjects taught include toy-making, baking, saddlery, painting, hairdressing, wig-making, shoe-making, civil engineering, cabinet-making, electricity, leather-dressing, lithography, printing, linotyping, carpentry, ornamental painting on glass, crockery, or enamel, sign-writing, photography, cinematography, soldering, plumbing, zinc-working, polishing and varnishing, upholstry, basket-making, woodcarving, clock-making, farming, and cattle-breeding. The quality of the work done is said to be very creditable and to reach the standards demanded by market.

SOME HINDRANCES TO THE ADOPTION OF A UNIVERSAL STANDARD IN SMALL HOSPITALS

Lack of Preparation of Training School Candidates—Need of Registration of Hospitals—Desirability of Co-operation Between Trustees and Professional Authorities

BY CHARLOTTE MANDEVILLE PERRY, Superintendent of the Malden Hospital, Malden, Mass.

After the war the designation of hospitals as large or small will not count for as much as during their development in our hundred years of peace. The West with its progressive thought may contribute new institutional types; and it is certain that present experiences in both large and small hospitals justify the hope that the efforts of the past few years will blossom into fruit on both sides of the continent. There is also ground for the belief that a universal system, educational, statistical, and economic, will be adopted. The introduction into our training schools and hospitals of systems relating to all three gives promise that in time there will be a general consensus of opinion on the subject. Cumbersome and inaccurate methods are giving way to more modern systems, many of which are excellent and show much thought and painstaking study. These are not merely labor-saving devices. They furnish a means of recording a pupil's experiences in the various departments of the hospital, as well as the educational opportunity and status which justice demands and which publicity would require. They insure oversight and fair dealing. Whether the card or the book is used is of less significance than the recording of the actual facts in a manner which makes it evident to all that the student's rights have been considered and so much required of her. The important bearing of these businesslike methods on the standards of the training school can hardly be overestimated. There is no reason why every school, large or small, should not employ them. Everyone should feel under obligation to work for the universal standard.

In regard to educational standards, as a hindrance of the first magnitude may be mentioned the lack of preparation of the candidate for the nurse training schools. Some of this is due to the early bringing up, but often to the absence in the high school curriculums of vocational courses for those who are looking forward to the nurse training schools. With the facilities which the secondary schools possess for teaching languages and science, including domestic science, it would be a saving of time and money for all if these preliminary courses could be arranged for.

Again, because of ignorance or indifference as to the value of all such aids, the smaller schools have often had to bear the brunt of doing without those facilities upon which their growth depends. If these matters were to be brought before training school authorities we might reap the special advantage which follows investigation. Inspection of schools and publicity have worked wonders. The need of these is another stumbling block in the path of realization.

Some states fail to register their hospitals as well as their nurses. In states where registration of hospitals has preceded that of the passing of nurses' registration bills, nurses' associations have been able to help along the good cause of uniform standards. The registration of schools is so bound up with state inspection that trustees or managers of institutions are not apt to recognize the significance of the one till the other has taken place. So that we may expect much from any state which appoints a training school inspector within its bounds, knowing that the awakening has come to that state when it essays to take note of conditions which prevail. Too much emphasis cannot be laid on this one point. Without hospital inspection and the publicity it entails, there cannot be much progress towards the adoption of universal standards.

One final obstacle may be found in the need of a little closer cooperation between the trustees and the professional authorities. Quite an impetus would result from their united exertions. The large hospitals have often been of great assistance to those which have no established system. To this generosity is frequently due the advance made here and there in communities where ideas are slow to overcome the antagonism which exists and where the let-alone doctrine retards the expansion which might follow an interest in what other hospitals are doing. It is specially incumbent on the trustees that they visit more in this country and abroad. They control the financial outlay and would be better able to judge of the recommendations of their superintendents if they kept in touch with recent developments. Providing the means is forthcoming, there is no reason why the small hospital should not keep pace with those of greater size, both being guided by the same standards; both having the same objects, the same work to do.

THE STANDARDIZATION OF HOSPITAL ADMINISTRATION

The Massachusetts Medical Society Section on Hospital Administration Discusses Follow-up System, Uniform Morbidity Reports, Efficiency Tests, Etc.

The Massachusetts Medical Society now has a section on hospital administration, the existence of which, according to the chairman, Dr. Homer Gage, is due largely to Dr. E. A. Codman. An interesting symposium held by this section on various phases of hospital standardization is reported in a recent number of the *Boston Medical and Surgical Journal.*

FOLLOW-UP SYSTEMS

The end-result and follow-up systems in use at various hospitals and the principles which should govern such work were discussed by Dr. Channing C. Simmons, of Collis P. Huntington Hospital, Boston. He says that, according to an investigation made for the Massachusetts General Hospital, a surprising number of the larger institutions in the country have no provision for ascertaining the end-results of the cases treated. Among those hospitals which do carry on end-result and follow-up work, methods vary greatly in efficiency. The best system in the country, in Dr. Simmons' opinion, is maintained by the Presbyterian Hospital of New York under the charge of a social worker. He quotes Carscaden as saying that for one year the results on 91.6 percent of the cases (2,278 cases) were determined. While the difficulties vary in accordance with the type of patients treated, Dr. Simmons believes it possible to trace 90 percent of a group of surgical cases at the end of from three to five years.

To obtain the best results, it is necessary to have the interest and active support, not merely the passive acquiescence, of the visiting staff. It is important also that the patient, before his discharge, should be told of the letter of inquiry he is to receive (which he may otherwise disregard, thinking it a dun), and should be impressed with the importance of responding. The proper time for report should be decided by individual consideration of each case. Three months is a good unit of time for most cases, and many can then be dismissed as recovered. Carcinoma pa-

tients, on the other hand, should be kept under observation for several years. Cases should be seen, if possible, by the surgeon who performed the operation, and, in any case, by some one in authority, interested and possessing good judgment.

Dr. Simmons believes that the work should be under the control of a librarian or custodian of the records. A trained full-time worker, not a mere stenographer or clerk, should be in charge of it. It should take the full time of one person and part time of a second to do the work of a hospital having a discharge list of from 3,000 to 4,000 a year, but only one of these need be trained.

UNIFORM HOSPITAL MORBIDITY REPORTS

Dr. E. A. Codman says that hospitals publish statistics as a sort of a boast that they are doing something, but that these statistics are so inaccurate and so diverse in plan and method of classification as to be worthless either for comparison or for more extensive compilation. If all hospitals had one uniform system of reports, no matter now simple, the added figures would form statistical and scientific data of far greater value than the elaborate reports on which hospitals now spend so much labor and money.

He suggests, as the basis of a simple and practical classification, division of all diagnoses into "malignant conditions," and "other conditions." This division would be sufficient for a small hospital treating about 100 cases a year. Hospitals which cared for 1,000 cases annually might subdivide under each heading; hospitals receiving 10,000 cases would subdivide still further. The annual report would display, under the appropriate headings, the serial numbers of the cases. He makes the following suggestions to the hospitals of Massachusetts:

1. Begin the new year with a new set of numbers, assigning these numbers consecutively to each house patient. Let each patient keep the same number, no matter how many times he returns, whether he reenters with the same or different diagnosis.

2. Let each hospital keep a chart on which the diagnoses are in two divisions, "Malignant Disease" and "Other Pathologic Conditions." At the time of the discharge of each patient, record on this chart the number of each patient under the appropriate heading.

3. Let each hospital, when it issues the annual report in 1919, publish a simple statement, giving the total sum of all the diagnoses reported under "Malignant Disease" and "Other Pathologic Conditions."

4. Let each hospital appoint a member of its staff to meet with the other appointees of all other hospitals which adopt this suggestion, this group to formulate further subdivisions of diagnoses for future reports.

While this plan, being new, requires some effort, Dr. Codman says, the total effort, labor, and expense would be far less than that expended at present without any real return.

STANDARDIZATION OF HOSPITALS

Mr. John G. Bowman, director of the Americal College of Surgeons, protests against the idea that standardization means making all hospitals alike. There is a place for individualism among hospitals; standardization merely insists on certain fundamental principles. For instance, a beautiful and expensively constructed institution in which there are no laboratory, no interns, or house physicians, and no case records, cannot be said to attain a satisfactory standard. Among the points requiring consideration in standardization are: relative efficiency, as shown by mortality rates, for instance; withdrawal of hospital privileges from fee-splitting physicians; accuracy in diagnosis; keeping of adequate case records.

EFFICIENCY TESTS APPLIED TO THE STAFF

Dr. Joseph A. Capps, chief of the medical staff of Cook County Hospital, describes an experiment in efficiency which has been carried out for the past three years with the professional staff of Cook County Hospital.

The unit of service is fifty beds, cared for by a team consisting of one senior and one associate attending physician and a senior and a junior intern. The markings are made by an efficiency committee on the entire team on service. The efficiency committee, provided with the following items of information, gives one or two evenings each month to the computing of the marks: post-mortem records for the month; bedside diagnosis of each post-mortem case; records of five histories from each service, selected at random; reports of social or welfare workers with reference to "satisfaction of patients"; letters from department chiefs regarding excellence or neglect on the part of the staff; publications and papers read by members of any unit before medical societies; a record of the hours spent at the hospital by attending men; and a record of attendance at the regular monthly staff meetings.

Markings are made from this material. Credit is given for each hour in attendance in excess of the legal requirement of eighteen hours a month; for excellence of histories as a whole; for promptness in making and completing records; for adequate and complete description of operation or of reduction of fractures; for success in obtaining post-mortems; for diagnosis checked by post-mortem; for publications and articles of merit, and for special work by interns approved by the committee; for cleanliness of patients, floors, and windows, and for the presence on the service unit of prescribed articles of equipment; and for satisfaction of patients. Deductions are made for failure to attend staff meeting; for each history sheet omitted; for inferiority of histories; for delay in making and completing records; for services having during the month five or more deaths and no post-mortems; for diagnosis checked by post-mortem; for failure to enter clinical diagnosis and fill in diagnostic sheet previous to discharge or death; for histories returned by librarian to interns for correction. Each month the markings of each service during the preceding month are posted in the main corridor.

The system is necessarily defective, inasmuch as it seems impossible to pass judgment on such important qualities as therapeutic skill and surgical judgment. Yet it has served the purpose of developing and maintaining a higher standard of efficiency in the routine work of the hospital, and has had much influence in promoting an interest on the part of the professional staff, not merely in the individual's own ward, but in the hospital as a whole.

Thirty free clinics for the treatment of nervous and mental disorders have been established under the direction of the New York State Hospital Commission in a state-wide campaign to prevent insanity. Approximately 40,000 insane persons are under treatment in institutions in New York state alone, and the care of such persons has become a serious problem for the state. It is felt that the ratio of hospital cases to population will be materially reduced by the clinic system, which will enable all persons threatened by mental disease to consult with a specialist and receive diagnosis, advice and treatment without cost.

BULLETIN OF THE AMERICAN HOSPITAL ASSOCIATION

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WILLIAM H. WALSH, M. D., Secretary.

War Service—Bureau of Registration—Meeting Plans for 1918—Personal Word to Those Interested in Hospital Work

COMMITTEE ON WAR SERVICE

As may have been noted by the Bulletin for December, the War Service Committee is very actively engaged on work which has been of material help to the Government and of untold value to all hospitals of this country. The committee welcomes suggestions from interested persons or institutions, whether represented on our membership roll or not. As the war continues, the responsibilities of this committee are bound to increase, and the success or failure of its efforts will depend in part on the support and cooperation of all civil hospitals.

Members of this committee are constantly in Washington, thereby preserving intimate touch with the various government officials and departments. The postcard questionnaire on the intern question has brought an abundance of information on the subject, and, as soon as it can be summarized, certain deductions and conclusions will be published in these columns.

LIFE MEMBERSHIP FUNDS

At the last meeting of the trustees the secretary and treasurer were authorized to invest the life membership funds in Liberty Bonds in case a future issue should be floated. It may be remembered that only the interest of the funds is available for current expenses. Attention should again be invited to the intentions of the trustees to recommend an increase in the life membership dues from $50 to $100 for active, and from $25 to $50 for associate. Those who wish to take advantage of the present rate must do so this year.

BUREAU OF REGISTRATION

A number of hospital positions were filled during the last two months through the agency of this bureau, and at the present time many desirable candidates are listed as available. There is no similar bureau in America to which hospitals may go for reliable information regarding suitable candidates for executive positions, and, if such institutions will make known their wants, every effort will be made by this office to fill them.

MEETING PLANS FOR 1918

At the recent meeting of the trustees it was definitely decided to hold the twenty-sixth annual convention in Atlantic City during the month of September, 1918 This decision was reached after every possible effort was expended in an endeavor to find suitable accommodations in Washington and Baltimore. Little need be said regarding the suitability of Atlantic City for a convention, but special efforts will be made this year to make the 1918 convention one of the most memorable in the history of the association. The Committee on Arrangements will soon be announced and will include the names of many hospital executives prominent in the state of New Jersey. Details of the arrangements will appear from time to time in these columns.

INCORPORATION

The Legislation Committee, of which Mr. Howell Wright is chairman, is now working on a bill for the incorporation of the association. It is expected that the committee work will have been completed by January 26, at which time it will be submitted to the trustees for final approval. The incorporation of the American Hospital Association will make the next step in its progress, and will place the organization on a permanent basis.

PROCEEDINGS FOR 1917

The work of editing the proceedings for 1917 is progressing rapidly, and, barring unforeseen events, the completed volumes should be in the mail by March 1, 1918. Members are urged to advise this office of changes of address as soon as possible, as postage is very high, and the book cannot be forwarded without new postage.

HEADQUARTERS

The permanent headquarters of the association have now been established, and members of the association are cordially invited to visit our offices while in the city Members may have their mail addressed here, and are at liberty to utilize all the office facilities available.

MEMBERSHIP—A PERSONAL WORD

Hospitals and their executives need the services of the American Hospital Association and its War Service Committee much more urgently during the present world war than during peace times. There are many weighty problems intimately affecting you and your hospitals that will be decided largely on the advice of the representatives of this association; and, if you have any desire to assist in shaping the policy that will be advocated, you should become a member of the association and thereby add your advice, counsel, and aid to those who are giving so much of their time for your interest. It is a patriotic duty to help the Government at this time, and this association is bending every effort in that direction while it is using every possible influence to preserve the integrity and increase the usefulness of the civil hospital.

This association and its various committees will help all, regardless of affiliation with its organization, but we submit that, without the aid of *your* cooperation, our strength is thereby decreased. The American Hospital Association is giving service to all hospitals in America, and it would appreciate some knowledgment of its efforts from those who are not members. A postcard to the secretary will bring you full particulars and the necessary application blank.

Frederick Lawrence Upjohn, president of the Sydney Ross Company, of New York City, who died December 3, left $130,000 to New York Charities, including $15,000 to the New York Association for Improving the Condition of the Poor, and $10,000 each to Long Island College Hospital, New York Society for the Benefit of Ruptured and Crippled, New York Hospital, American Female Guardian Society and Home for the Friendless, and Stony Wold Sanatorium.

DEPARTMENT OF NURSING

Conducted by MISS ANNIE W. GOODRICH,
Teachers' College, Columbia University, New York City.

Please address items of news and inquiries regarding Department of Nursing to the editor of this department, Teachers' College, Columbia University, New York City.

The Educational Problem of the Small Hospital*

BY CLARIBEL WHEELER, R. N., Mt. Sinai Hospital, Cleveland, O.

The education of the student nurse in the small hospital school of nursing is one of the most serious problems confronting nurse educators today. The harassed principals of these schools are crying out to be relieved of a burden which is fast becoming too heavy to bear. How long are we to countenance the present system, which is so taxing the health of our student nurses? Is there no way in which pupils from both large and small hospitals may receive their theoretical training together, and before they take their practical work?

Before discussing the needs of the small hospital school I would like to bring to your attention a few facts concerning small hospitals conducting nurse training schools. In 1911, Miss Nutting reported 1,048 hospitals in the United States (not including hospitals for the treatment of nervous and mental diseases) which were maintaining schools of nursing. Of the 1,048 reported, 181 were hospitals of 50 to 60 beds, 355 were hospitals of less than 50 beds, 48 of the last group being hospitals of less than 20 beds. This shows 50 percent of our schools of nursing connected with hospitals of 60 beds and less. The small hospital is not confined to any particular locality, but is found in all parts of the United States. Registration laws have, of course, as shown in Miss Wheeler's report of 1916, diminished the number of small hospitals conducting training schools.

The small hospital is a factor which cannot be ignored. It meets a definite need in the community, and has without question come to stay. Its patients must receive nursing care. It is impossible, as well as inadvisable, to send all sick people to large hospitals. The large city institutions are already overcrowded; besides, the small hospital offers many advantages to the patient which the large hospital cannot give.

The pupil trained in the small hospital receives closer supervision and is more likely to be particular about minor details and to be much more human than the pupil from the large hospital.

As the small hospital can contribute some things which the large one cannot give, is it not advisable that there be cooperation between the city and the country, between the large hospital and the small hospital, so that the same professional education may be given to pupils from both?

Let us look for a moment at the school connected with a small hospital. The sole purpose in establishing such a school is to provide nursing care for the patients at the least possible expense to ths hospital. Some of these hospitals are fortunate in having a board of trustees or a training school committee who are interested in the school as a school, and are willing to provide instructors and facilities for proper teaching of pupil nurses. Often these schools are not so fortunate and there is little provision for the theoretical education of the nurse. The superintendent of the hospital is often principal of the school, the burden of much of the teaching falling upon her, with perhaps the help of an assistant, who usually teaches the practical work. She is often dependent upon her kind-hearted medical staff for lectures and class work. This is unsatisfactory, not because of any unwillingness on the part of these men who give their services, but on account of the uncertainty as to their time. In many of these schools there is a deplorable lack of class rooms, demonstration rooms, and laboratories, and frequently no space for providing them.

It is very difficult at the present time to secure trained instructors for the large schools, to say nothing of procuring them for the smaller ones. If we are to standardize our schools, is it not highly important that only women especially trained should be considered qualified to teach student nurses?

Affiliation has been held out as a means of settling some of these difficulties. The advantages of affiliation cannot be overestimated. The affiliation of a small country school with a large city school is an excellent thing for the student nurse. It not only rounds out her practical experience as nothing else can do; it broadens her viewpoint as well. I am not so sure, however, that it would not be just as advantageous for the student from the large school to have a period of training in a small hospital. Is it not true that the greatest advantage in affiliation is the opportunity it provides for practical experience? Does it in many instances give great opportunity for theoretical work? Is it not a fact that the pupil is often seriously handicapped by having to leave her home school in the midst of her class work to go to the affiliated school for special training? This is especially true when the two schools are not in the same city, as is often the case. We cannot truly say, therefore, that affiliation does solve the educational problem for the small schools.

Let us consider the possibility of a central school. I think the central school has been in our minds for a long time, but we have thought of it in a vague sort of way as something very far in the future. I see it now as something near at hand. We have thought of it usually as being connected with a hospital. I see it as entirely separate from any hospital. The hospital has always been first in our vision. May I ask, does the young man entering medical college think first of the hospital when he is to receive his internship? No, his first consideration is of the best medical school that he can possibly find.

Let us then put aside the thought of the hospital, and consider a central school for nurse students. If we are to be a profession, then our schools should take their place with other professional schools, i. e., connected with universities throughout the country. The dentists, pharmacists, engineers, and other professions are there. Are we asking too much to be placed there also?

The nursing profession has grown out of a great human, social, and economic need. It has not been created by either hospital authorities or the medical profession. It seems to me that it has reached the period in its growth when it is able to stand upon its own feet.

Central university schools will undoubtedly solve this very difficult problem of theoretical training for both large

*Read before the joint meeting of the National Associations of Nurses, Philadelphia, 1917; presented here by courtesy of the *American Journal of Nursing*.

and small hospitals. Some of the advantages of such a system are as follows:

1. It would provide an uniform system of education for all schools of nursing.

2. It would raise the educational standard, making the minimum requirements a high school diploma.

3. It would appeal to the kind of young women who are qualified to become professional nurses, as it will place the nursing profession on a plane with other professions. It will also appeal to them more than our present system, because long hours of study will not be combined with long hours of physical work. This is one of the greatest objections that intelligent young women have to our schools, and one of the best reasons why more do not enter the profession.

4. It would provide teaching facilities, such as class rooms, laboratories, libraries, etc., which could not be obtained in any other way.

5. The qualified professional instructor would take the place of the nonprofessional instructor of our present system.

6. It would make hospitals laboratories where the student nurse would receive her practical training. This could be taken in small hospitals and in special hospitals as well as in large hospitals.

7. State registration would not be so difficult under this system.

8. Central university schools would be able not only to give the preparatory theoretical course, but could give post-graduate work, similar to that now given at Teachers' College, for students wishing to specialize in certain branches of the work.

It would be presumptuous to say that in establishing central schools of nursing there would not be many difficulties to meet, many obstacles to overcome, many problems to solve.

One of the first questions to be raised would be, "How are we to nurse our patients in the hospitals?" First, by employing more graduate nurses, as head nurses, private floor nurses, night nurses, etc. Second, by the use of the ward helper, trained attendant, or whatever she is to be called, to perform some of the work heretofore done by student nurses. Florence Nightingale recognized the need for two classes of hospital workers. This woman is not to be confused with the ward-maid type, but should be a woman of much higher intelligence, faithful, loyal, and possessed with a desire for caring for the sick, yet not having the education and other qualifications necessary for the professional nurse. She may be found in many schools today. I have seen her struggling bravely to master her theoretical work, which was entirely over her head, yet her practical work was above criticism. Let me emphasize this fact: she is already in many of our schools. Let us train her and give her a place, but why insist that she become a trained professional nurse? The system which has placed refined, educated girls in the same mold with the grammar school girl or the one-year high school girl, and has expected them to come out the same product, has miserably failed. Each has a place, one quite as honorable as the other, but it is unreasonable to expect the same process of education to be used for both with satisfactory results.

Several schools of nursing are already connected with universities, and it is doubtful if there would be great difficulty in securing the cooperation of the university. If this should happen, central schools might be established independently providing the proper people could be reached and a sufficient endowment raised.

A plan for a central school is to be presented in another paper, consequently I shall not attempt to discuss it here.

My purpose has been to emphasize the need for central university schools with hospitals used as laboratories for practical work and public health centers for field work; also to emphasize the fact that the same theoretical training must be given to all student nurses who are to become professional nurses. This is essential if we desire a uniform standard, and if we wish to be classed with other professions. I realize that this change cannot be brought about at once, that the doing of it is fraught with many difficulties, but I do seriously believe that the university is the only logical place for central schools; consequently, if it is right, it is worth striving to attain.

Health Conservation in the Training School

Any mechanic will tell you that if you run your machinery at top speed and do not oil it as often as it should be oiled, sooner or later it will break down. When this happens, the machinery stops and time, labor, and money are lost.

We don't believe that a nurse is a piece of machinery, although unfortunately there are still heads of hospitals and training schools who treat her as though she were one. A few years ago the supervisor of the surgical department of one of our large open-door hospitals, whose records show about six thousand cases in that department in each year, noticed that during the hot weather or during an especially busy time it became quite a usual occurrence for a nurse to faint, or to come so nearly fainting that she had to be replaced, even while an operation was actually going on.

Added to this, the supervisor found on going over her records that there were too many capable girls who had to give up their surgical training because they lost weight and vitality so rapidly after being in the service for even a short time. The one common factor in all the cases of fainting was that the fainting nurses had eaten no breakfast. Some of the girls, of course, were in the habit of getting out of bed at the last minute and had no time to eat; others were of the type who could not eat a breakfast, and still others had reached the point where institutional food did not appeal to them and they did not want it. The resulting investigations worked out this way:

The superintendent of the training school and the operating room supervisor put their heads together, and, after some delay, threats, and persuasion on both sides, the superintendent of the hospital gave a standing order to serve the nurses on duty in the operating rooms with some liquid refreshment at 10 o'clock in the morning and at 3 each afternoon, and for the night force at 9 p. m. As soon as the extra mealtime was put in practice, the fainting stopped, the whole atmosphere became more cheery, and the work accomplished more smoothly and easily done.

Now, the strange part of this story is that the same idea has been carried out in several hospitals by people who never knew of others doing it, which all goes to show that all of our problems have much the same solution.

The Mercyville Sanitarium is a new instititution at Aurora, Ill., built and equipped by the Sisters of Mercy for the treatment and care of patients suffering from mental and nervous diseases. Dr. H. J. Gahagan, former superintendent of the Elgin State Hospital, Elgin, Ill., and Dr. F. N. Maginnis, of Aurora, constitute the medical staff.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.,
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

The Value of a Social Service Department to a Tuberculosis Sanatorium*

BY HARRIET FULMER, R. N., Supervisor of Public Health Division, Cook County Bureau of Social Service.

Perhaps it is too early in our experience of installing a social service department in the Cook County tuberculosis sanatorium at Oak Forest to presume to tell about the discoveries made which have been of value both to the discharged patients and those still remaining in the institution, but even so this is an opportunity to draw attention not only to its value, but also to the necessity for this connecting link from the outside.

Only a few years ago we could hardly form a specific definition of "social service," much less apply it to the thousands of cases in hospital beds anywhere in America. It hardly seemed possible that the sick man in the institution had any relation whatever to his home, his family, or his occupation. Then someone out of a clear sky said that perhaps if we knew what made this person ill, something about his family, the condition of his home, his cause for worry, etc., we might help him to recover more quickly, and incidentally perhaps prevent the necessity of his again returning to a hospital institution.

In the last seven or eight years, things have moved forward very rapidly in the care of the ill, and one important institution that has come to stay is the social service department of the hospital. At this present time, from one end of the country to the other, large and small hospitals alike are as rapidly as possible adding social service departments with a follow-up system, so that in the not far-distant future every general hospital ward will have an invisible line running from the hospital bed miles away to the patient's home, and this connection is the social service nurse. If such a system has been found of service in a general hospital, how much more value it ought to have in the tuberculosis sanatorium toward the more speedy recovery of the patient or the peace and happiness of the ones who are past recovery? I say that it ought to be of more value because the tuberculosis patient must have freedom from worry, for the very nature of his disease makes him restless and dissatisfied, and, if we are to keep him in the institution, we must institute measure to bring the above conditions about. Whatever agency we fall upon, there is no gainsaying that the social service department will fill the bill.

A little over a year ago the board of county commissioners of Cook County, through the social service bureau and the vision of its president, Peter Reinberg, appropriated sufficient funds to institute a rural nursing service as a department of the bureau of social service, this division to be used for the people living outside the city. There are now four nurses in this service; one of their duties is to seek out the cases of tuberculosis and advise county sanatorium care. The Cook County tuberculosis sanatorium was built by the county board before our present Illinois tuberculosis act came into operation. The new act compels tuberculosis sanatoriums to be erected somewhere away from the county institutions. Ours is situated on the grounds of the County Poor Farm, and, though it is remote, there is still the prejudice existing in the minds of the people that they are being sent to the poor house. With this condition existing, it is not an easy task to get the rural sections to use the institution, although since the social service nurses have been in the field, a change is gradually taking place in this attitude. In the near future there will be, no doubt, erected a tuberculosis sanatorium under the new law.

A second and important part of the work of this social service department is a weekly visit to all patients living outside of Chicago who are in the sanatorium. The nurses make rounds to a dozen or more of these cases, and then, if possible, a message is carried to the home, and the following week one is brought back to the patient. The history and home condition of each patient are reported to the heads of the institution when necessary. When there is need, also, the nurses on duty in the wards are asked to request the social service nurse to make a special visit to the home of the patient to secure such information as shall be of advantage to his recovery.

I am not going to recite in detail the family history or home conditions of these hundred cases, but I am asking you to make a mental picture of a hundred homes from which these patients came. Make a mental picture of a line running from each individual in the institution to his home. These are the general facts disclosed.

In these families, roughly estimating, there are 492 contact cases, which upon examination were found to produce 94 active cases, some glandular and some lung. Forty of these patients were fathers; 40 were mothers; 60 were the bread-winners; all were under the age of 40 years. Thirty-four children left school to work on account of the illness of the bread-winners. Ten of these people died, leaving their children to the care of strangers. In 58 of these homes there was great poverty, insufficient food, insanitary housing, largely brought about by insufficient wage. Twenty-eight of these people had worked at an occupation which produced their present low physical resistance. To each of these homes the nurses have made from one to six visits. They have been the bearers of messages to and from the patient to his family. They have been of value in giving post-sanatorium supervision; in helping prepare the patient's home for his proper reception; in securing future occupation, or a change from previous one; in soliciting and securing the cooperation of the patient's family in inducing him to remain in the sanatorium; by keeping home worries away by frequent letters.

One little girl whose father was a patient was induced to write her father a post card every day. The successful care of this case came about through the interest of this man's little 10-year-old girl.

A social service department in a tuberculosis sanatorium is one more agency to help a patient on to recovery and to save the sanatorium many dollars in the speedier adjustment of the family to normal life.

You may think that all these conditions could be brought about as easily for less money by correspondence,

*A Study of the Homes and Families of One Hundred Tuberculosis Patients; read at the Mississippi Valley Conference on Tuberculosis, Minneapolis.

but when you remember the effect of a personal visit to the home in the spirit of a "good neighbor," plus the skill of a trained worker, the comparison is odious. I remember meeting not long ago in one of our corridors at Oak Forest a boy of 14 years who had been quite ill. He was progressing finely, and another month would see him permanently well. He accosted me thus:

"I must go home, for I worry all day about my mudder. My fadder is not good to her, and I have not seen her in a long time."

I said to Anton: "I am going to see your mother tomorrow and tell her that you are getting well and will soon be home, and then I will send you a letter to tell you how I find your mother."

The child was satisfied, and because of this procedure remained contented in the institution until his final discharge. He is now earning a fair wage. With all the good will in the world, no institutional nurse in a tuberculosis sanatorium of 675 beds could possibly take the time to do this service for this little boy. This is an instance which represents the really human side of the work.

In another case the records of the sanatorium had nothing about the dark, insanitary basement in which Mr. B.'s family were living, but the nurse in her follow-up on her rounds discovered that this family were living in a tuberculosis breeding-place. After several interviews and many days of hard work the family were moved to better quarters and the landlord of the basement was notified by the village president to put these premises in a sanitary condition or otherwise not to rent the place again.

Some of the handicaps of the nurses in our division trying to do this work are the following: The territory covered by the homes in which these hundred patients live is scattered and large, the area covered being about 600 square miles; the population is 250,000, and the transportation is difficult.

We feel that every home should be seen not less than once a month. The present force can arrange only a visit once in two months for, in addition to these hundred families in the Oak Forest institution, there are 530 now under the jurisdiction of these field nurses that need attention. There is no doubt that the sanatorium at Oak Forest gives as good medical and nursing care and has as good food and surroundings as any institution of like character in this country, and yet the administration feels that their work can be only half done without an adequate, thorough follow-up system, and that we have made a great step in advance in instituting one at Oak Forest.

Today John Smith enters the sanatorium, brought by a kind friend or a township supervisor. In a day or two his home will be visited by the social service nurse. Here she finds a wife and four children living in close quarters. She persuades them to come to the clinic for examination. Two of these contacts are found tuberculous and are admitted to the sanatorium with the father. The mother must now be the wage-earner. Work must be secured for her. This family when found were surely going down very rapidly. Today the man is heartened once more and they are again on the road to rehabilitation. Without the follow-up work surely a part at least of the sanatorium service would be lost.

We promised little Elsa, a child of 14 years, whom we found in the village school a well-advanced case of tuberculosis, that if she would go to Oak Forest she would have a visit from someone every day from her home. Elsa had been a source of infection to every playmate in the village. Her mother and four maternal aunts had died of tuberculosis. She was living with her grandfather, the only person left to care for her. We prodded this old man to go to see Elsa every day. She was in the sanatorium for five months, kept clean and comfortable as long as she lived.

The field nurse and the social service nurse, as one and the same person, rounding up cases in the districts and making visits to the homes of the sanatorium cases is the tie that binds the sanatorium to the community. The social service nurse is working all her waking hours to correct false impressions of the institution.

Tuberculosis patients are not easy to please, and a few may be dissatisfied. It is the province of the social service nurse, by cooperation, by influence, and by personal argument, to persuade the people to visit the institution as often as possible. When this is done their fears are disabused and indifference turns to appreciation. Hardly a day passes that this fact is not brought out.

Summing up, then, we are prepared to confirm our original plea that a social service department with its follow-up work to each home is of infinite importance in the conduct of a tuberculosis sanatorium: (1) to the patient because of the close personal relationship already established in his home by the nurse; (2) to the family by advising other members to be examined and encouraging them in carrying out a routine of personal hygiene; (3) to the community by removing a source of infection and by spreading knowledge of general hygiene; (4) to the institution by establishing a better understanding of the service rendered by such an institution and making for a more harmonious administration.

Finally, I am now making a plea that we use all influence possible to institute social service nurses in our county sanatoriums everywhere, helping in some measure to make more bearable the life of those afflicted with the "Great White Plague."

Standards of Out-Patient Service as Interpreted at the Peter Bent Brigham Hospital, Boston

In the current annual report of the medical department of the Peter Bent Brigham Hospital, by its physician-in-chief, Dr. Henry A. Christian, appears a section on the out-patient department, which will be of great interest to all hospital superintendents. Dr. Christian outlines clearly certain dispensary standards, and places definitely before us the ways in which they must be attained. The facts concerning his out-patient department quoted by Dr. Christian indicate certain kinds of information which every physician and superintendent should collect about the clinics in which he is interested. Only through facts can the actual efficiency of a clinic be tested.

"In the wards the number of patients treated is largely limited by the number of beds and the types of patients admitted. In the ambulatory out-door department such limitation does not exist. A faulty out-door department service is likely to come as the result of admitting more patients than can be attended to.

"Omitting Sundays and holidays, when the clinic was closed, in September, 1916, there were twenty-five working days each of eight hours a day, which gives 200 hours for each man's work. The work [in the out-patient department of the Peter Bent Brigham Hospital] is divided so that each day one man takes charge of old cases and one man takes charge of new cases. In this way there was available in September for old cases 200 hours and for new cases 200 hours. During September, 1916, there were 1,396 old cases seen in 200 hours, or 6.98 cases per hour, or 8.5 minutes for each old patient as an average. During the same period there were 500 new cases, or 2.5 patients

per hour, or an average of 24 minutes for each patient seen by the doctor. As the number attending the clinic varies greatly from day to day, there were necessarily many periods due to overcrowding in which old patients received less than an average of 8.5 minutes of attention and new patients less than 24 minutes of attention. It is to be borne in mind that these are average figures, and as some patients require less study and less attention, whether coming as old or new cases, than do others, by reducing the time given to such cases more time becomes available for the cases requiring more detailed study.

Now, in accordance with the statement of a recent annual report of the Massachusetts General Hospital that no physician should see more than six new or twenty old cases within three hours, each new case should average one-half hour's time of the physician, and each old case a little less than ten minutes. Assuming that each new case should have thirty minutes of time, and these figures have been quite carefully worked out at the Massachusetts General Hospital on the basis of a long experience, during the month of September we should have taken care of 400 new cases instead of the actual number, 509. On the same basis, if old patients should have ten minutes per patient, we should have taken care of 1,200 old patients instead of 1,396, the actual number that were cared for.

"We may do nothing in regard to the out-door department and trust to its size being limited automatically by reason of the poor work done in the short time available for each patient, and so cause a limitation of the number coming by establishing the reputation of doing poor work. This, I take it, all will agree is an undesirable policy. Two other possibilities remain: one is to increase the number of physicians working in the out-door department. This may be done by the appointment of assistant visiting physicians on salary. This plan involves the expenditure of money, and whether or not we are able to do this depends upon the financial condition of the hospital. If the hospital can afford it, I would recommend that such provision be made. In this connection I think it is fair to state that, judging by the experience in other hospitals, it is becoming very difficult to get adequately trained men of a high standard to do out-patient work consecutively on an unpaid basis, because the return from such work in the way of increased medical knowledge and power is not proportionate to the time spent.

"Another method to meet the need of additional men in the out-door department would be to invite graduate house officers to stay on in residence beyond their present period of sixteen months' service for additional out-door department service. As conditions are at present, our graduates have numerous offers of attractive posts. To offset this we would have to make our additional service attractive. Unless we do so I do not think our men would care to remain four months longer. . . .

"The second possibility is to limit the size of the out-door department clinic. At first glance this seems a radical step. On consideration, however, it is evident that sooner or later such a step is inevitable. To employ one or two additional physicians on duty at a time as outlined above will bring a better service to our out-door department as far as present numbers are concerned, and will enable us to take care of a somewhat larger number than we are at present handling. To increase our working staff in the out--door department much if any, beyond the two additional physicians, even if the money is available, will not be very feasible because, with a larger number of physicians working and a larger number of patients handled, the physical plant which we have will be inadequate for the service, and the next step necessarily will be either enlarging the building or limiting the clinic. In my judgment to limit the clinic at the present time to such numbers as we can adequately handle will not be a bad policy. In fact, it will be a forward step in the administration of out-patient departments, inasmuch as it will be placing a standard on out-door department work which says that so many patients can be handled with the physical equipment of the institution and the available number of physicians of high quality, and rather than to have more patients than we can take care of satisfactorily, we will limit the number, and in their care maintain a certain standard of work rather than increase the number and lower the standard of work.

"It seems to me that such an even distribution of patients could be maintained easily in our clinic if someone were on duty in the admitting office of the out-door department who could make appointments with new cases, so that after three or four cases had been admitted the next new patient would be told that perhaps if they came now they would have to wait a considerable time to see the doctor, but that if they would return at, let us say, 2 p. m. today or on the following day, as the case might be, they could be seen quite promptly by the physician. In this way time could be scheduled for the patient, allowing each new patient thirty minutes of time. If the patient paid his admission fee when the appointment was made, the chances are that most of them would come back for the appointed time.

"Obviously, in such a plan discretion has got to be used for several reasons: some patients have left their work and so lose pay by not being seen on that day; other patients have traveled a long distance, and it is inconvenient to repeat the journey. Such patients should be admitted at once and handled as quickly as possible. Finally, some cases are obviously acutely ill and need immediate attention. Those should be treated as emergencies and short-circuited ahead of cases already admitted. For a proper understanding of the patient in this plan of admission one who has medical knowledge will be required to do the work.

"If this plan is adopted for new patients, a much better service, I am sure, would be rendered to each new case. In regard to old patients the difficulties are slighter, and a considerable regulation as to their time of return can be made by the physician when he sees the patients by asking them to return on a given day at a given hour, selecting days when it is not likely that the clinic will be overcrowded, since experience has shown that certain days bring the largest number of patients; or, if it seems necessary, a book of appointments can be kept for old patients. By such an appointment scheme a certain number of patients would be unable to keep their appointments and such vacancies would serve to take care of emergency patients, patients from a distance, and patients who for reason of occupation would find it very difficult to come a second time. Many of our patients live near by, and I feel sure that most of them would rather go home and come back in three or four hours, or on another day, in preference to remaining three or four hours in the clinic waiting to see the doctor. I would strongly advise the adoption of some such plan as this to provide better service for the clinic as it now stands, even if additions can be made to the staff working in the medical out-door department."

Arrangements are being made to rebuild the recently burned administration building of the Bon Air Sanatorium, at Bells Camp, near Bradford, Pa.

THE WAR: ITS HOSPITAL, MEDICAL AND NURSING ASPECTS

HINTS FOR WAR WORKERS

What to Take to Paris—Suggestions for Avoiding Unnecessary Inconvenience and Discomfort

"If you are coming over to take your part in the big work over here," writes Margaret L. Farrand in a letter to the American Fund for French Wounded, "there is one rule which you will do well to follow: Do not believe everything you are told. If you do, you are likely to find yourself wearing two pairs of woolen stockings, because Mrs. Jenks always had chilblains in Paris before the war, and what must it be like now. Or you will give all your matches to the steward on the steamer because someone told you that you could not bring them in. Or you will arrive, as a dozen girls did the other day, equipped with high rubber boots, which are just as necessary in Paris as they are in New York or Boston or Chicago.

"But there are a great many things which it is well to consider beforehand, and a number of us who have just landed have been pooling our experiences and our 'I am glad I did that' and 'I wish I had known this,' in the hope that they may be of help to you who are about to sail.

"Photographs first. They must be small, unmounted, showing just the head, and must be taken without hats (that is, a new regulation on which the Paris photographers are waxing fat). You will need four when you make application for your passport—two for the French consulate, where your passport is viséed, and four for your *permis de sejour* in Paris. If you are going outside the city at all, you will need from two to two dozen more. If you are going to drive a car, you will need two when you get your license. A dozen is the minimum and the maximum is infinity.

"Papers. Keep everything that is given to you—passport, birth certificate, application for passport, etc.—and take them with you wherever you go. You have to show your passport when you cable, for example.

"Money. There is a new law which prevents the sending of American gold out of the country. Consequently the rate of exchange is low. You will probably find traveler's checks or a letter of credit the most satisfactory form of banking.

"Baggage is a tremendous problem, even though you do not have to carry your own trunks, as some kind friends in America will tell you. You will probably find it better to check as much baggage as possible from your boat to Paris. You will have to pay excess, of course. The allowance is 30 kilos on a second-class ticket, but, if you can reduce your hand luggage to things that you can carry yourself, you are much more likely to have all your possessions when you reach your Paris hotel.

"If you are going to spend a night in Bordeaux, try to wire from the boat for a room, and wire from Bordeaux to Paris for a room in some hotel for your first night. Small hotels and pensions are crowded. You can find accommodations, but you may have to hunt for weeks before you find exactly what you want. Collect all the addresses you can before you come over.

"Food. You can bring in a few pounds of sugar if you like, and, as getting a sugar card is something of a task, it may be as well to bring a box if you want to have tea in your room. You will find all the sugar you need for your three meals on your hotel table. There is plenty of chocolate here, and there is candy, but it is more expensive than at home. Tobacco is dutiable, except a small amount for personal use or for the United States army.

"Don't let your friends load you with packages to mail to people in France. The mailing system is extremely complex, and the chances of a package's arriving are about as good if it is mailed at home.

"And now to attack the important feminine problem of dress. Everyone who has come over this year seems to have prepared for a winter like the last, which was one of the worst Paris has ever known. There is a furnace in the Alcazar (the Paris headquarters of the American Fund for French Wounded), and there are also stoves in several of the rooms. You won't be any too warm, but neither will you have to wear a fur coat all day long. Many of the small hotels are heated, and so are some of the pensions. For a nominal sum you can have hot water brought to your room every day. Of course, all this applies to Paris; if you are going outside, you will find conditions much harder. All motor drivers of the A. F. F. W. are obliged to wear uniforms, and so are the workers who go outside of Paris. The packers and office workers need caps and large blue aprons, which can be purchased here, but they may, if they like, wear the uniforms. You can get your uniform in Paris for about $50. With it you will need high-collared shirts of flannel or silk, or anything you please. You can, and generally do, wear your uniform everywhere, except to bed. If you do not have a uniform, a suit will answer most purposes, with a simple warm dress or two if you want to change in the evenings. Bring plenty of thick undergarments. Woolens are not easy to get here, and you will want them and woolen stockings, too. Laundry is well done, but fairly expensive. If you plan to do any of your own washing, bring laundry soap with you. Bring an umbrella, and don't put it in your trunk; the chances are ninety-nine to a hundred that it will rain while you are in Bordeaux.

"Finally, be prepared to find everything quite different from what you expected, and be ready to adapt yourself to conditions of any and every kind."

* * * *

TUBERCULOSIS IN FRANCE

Importance of the Problem to the Health of the American Army—Work of the American Red Cross

One of the big problems receiving the attention of the American Red Cross in France is to free the country as far as possible from tuberculosis, with which, it is estimated, some 500,000 persons are afflicted. Scientific efforts to control the spread of the malady are not only of supreme concern to France herself, but also of great importance in making France healthful for the American troops over there.

The Red Cross is cooperating with the Rockefeller Foundation in financing a commission for the prevention of tuberculosis, the Rockefeller Foundation paying administrative expenses. The commission sent to France is headed by Dr. Livingston Farrand, president of the Uni-

versity of Colorado and formerly president of the National Association for the Study and Prevention of Tuberculosis.

The work is beginning on a modest scale, the service to be extended as opportunity may offer and results justify. All work is being done under the general administration of the French Government and by French people. The administration of the work is centered in Paris, and intensive educational work by means of four mobile educational units is being conducted from this headquarters. These educational units are establishing local antituberculosis dispensaries.

Four training centers for educating workers to man these dispensaries are being established and maintained in Paris, Bordeaux, Lyons, and Marseilles, respectively. It is expected that ultimately France will have between 300 and 400 antituberculosis dispensaries, and upon them will fall the burden of controlling tuberculosis in France. They will be maintained largely by local funds.

In connection with each of the dispensaries provided, three factors will be needed which it is proposed the American Red Cross shall provide, except in so far as they may be provided by French public authorities, organizations, or citizens.

The first of these is special home relief for destitute families in which there is a case of tuberculosis, this relief being of such nature and amount as the sanitary conditions require. Second is a hospital to which moderate and advanced cases, whose home conditions are such that they cannot remain at home without being a menace to their families, may be sent. It is not expected that these patients will recover, though they may improve, and the primary object of the hospital is not the cure of the patient, but the safeguarding of the health of other members of the family by removing the tuberculous members. The third is special provision for the care of children who have already been intimately exposed to a serious case of tuberculosis. This provision may either be institutional, with a special "regime" and special feeding in the nature of preventorium, or it may be the establishment of a special "regime" with medical and nursing supervision and special food in the homes of the children.

In addition, the Red Cross Commission in France, on the invitation of the sanitary service of the French Army, is completing the unfinished building of the tuberculosis sanatorium at Bligny, some twenty miles from Paris. This admirable institution, which is in many respects a model, was occupying about one-half of its proposed plant when the war broke out. A large building, intended to accommodate two hundred patients, was about 80 percent completed. The walls, floors, and roof were completed, doors and windows in place, but heating, lighting, and plumbing were lacking. All work was discontinued on the opening day of the war, and everything has remained to the present day just as it was left. It is estimated that the building can be made ready for use very soon. It will be used by the military authorities during the war, and will then revert to the sanatorium association.

During the past year the city of Paris has established temporary tuberculosis pavilions on the grounds of six general hospitals. The total capacity of these pavilions is 464 beds, but, notwithstanding the enormous number of tuberculous patients in Paris among the refugees and persons invalided from the army, the pavilions are not more than half full. Many factors contribute to this result. The large amount of work thrust upon the civil authorities by the war conditions has not permitted much to make the pavilions attractive.

The American Red Cross has secured permission to visit these hospitals and to befriend the tuberculous patients. On the first visit, inquiries were made of the patients as to what they most needed. On the second occasion, the visitors did not go empty-handed; they took with them games, stationery, postage, jelly, colored crayons, sketch books, and other articles to entertain the patients. The Red Cross hopes that not only will the lives of these patients be made much more comfortable and their families relieved of anxiety, but that making the surroundings more cheerful, providing additional food, games, better equipment, reclining chairs, and some form of recreation and entertainment, will result in the patients staying for longer periods. The use of the pavilions to their capacity would obviate the necessity of erecting additional tuberculosis hospitals with 300 beds, which would involve great expense and long delay.

Four chateaux equipped for use as sanatoriums, several automobiles, a large supply of blankets, food and other supplies, office equipment, and the funds of the society were turned over to the Red Cross by the founders and directors of Les Tuberculeux de la Cuerre. The funds thus received, together with the proceeds of the sale of some of the property, have been set aside in a special Red Cross fund for the care of tuberculous patients and the prevention of the disease.—News Service of the American Red Cross.

* * * *

SPHAGNUM MOSS AND WOOD PULP FOR SURGICAL DRESSINGS

War-Time Need for Conservation of Cotton Leads to the Discovery of Satisfactory Substitutes—Source of Sphagnum and Cellulose

Two very good substitutes for cotton in the making of surgical dressings have been brought into use by the need for conservation of hospital supplies at this time. These

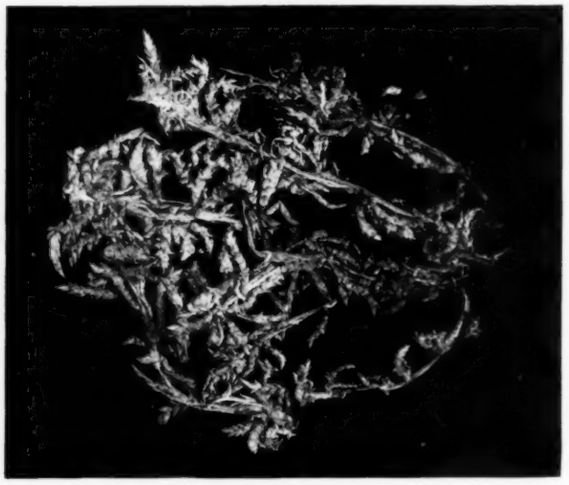

Fig. 1. A piece of sphagnum moss, which was gathered by a church society on the Atlantic coast, and sent to the American Fund for French Wounded for use in dressings.

are sphagnum moss and wood pulp cellulose. Sphagnum moss has its economical advantage, because it may be gathered and prepared by volunteer help, and has very good absorption, and the wood pulp because it has all the absorption of the best cotton and may be cut and separated in a much shorter time.

Sphagnum moss grows in moist, boggy places, and is of several varieties, only a few of which have the necessary

power of absorption to make them usable for surgical dressings. Moss grown in a mild moist climate is the best. The moors of Scotland and Ireland produce a fine variety. In this country we have found the best sphagnum in the boggy districts of the Atlantic coast, growing where it is most free from foreign organic material.

The moss, after being gathered from the peat bog, squeezed out, and freed from most of the organic matter, is specially dried and carefully packed into clean sacks. When almost dry, but still moist enough not to be brittle, it is picked over by hand and graded. The first grade is usable for any dressings where cotton is required, and the second grade for bed pads. After grading, the moss is hung up in hammocks for complete drying. Both the British and Canadians have made extensive use of sphagnum in this war.

Wood pulp cellulose, the trade name for which is cellucotton, has been for some time used by the central powers wherever it would replace or conserve the use of cotton. The experiments in this country have proved that the wood pulp made here is of even better quality than the

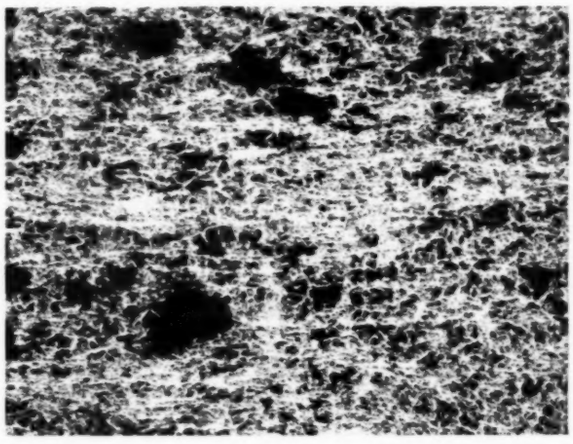

Fig. 2. Wood pulp cellulose. Observe the fine, lacy texture.

specimens received of those in use by the Teutonic governments. Cellucotton is pure white in appearance, soft, and of a lacey fineness, and absorbs best when broken up and used in thin layers.

The report of the Bureau of Standards of the Department of Commerce shows that wood pulp will absorb twenty times its own weight of distilled water. Its absorbent capacity is no greater than that of the best grade of cotton, but it holds moisture longer, and its absorption is twice as rapid. Wood pulp is also much easier to handle and cut than cotton in the making of various pads, replaces twice the bulk of cotton and in this way saves time and labor.

At the Chicago headquarters of the American Fund for French Wounded, where large quantities of cellucotton has been used, Mrs. G. H. Taylor, the supervisor of dressings there, reports that women workers who have become proficient in the making of the Carrell-Dakin pads, in which a very thin layer of material must be used, can make many more in a given time than they could when the absorbent cotton was used, as the wood pulp may be so much more easily separated. The present market price of cellucotton is about 32 cents per pound, but there can be little doubt that when this material comes into more common usage, and is more extensively manufactured, this price will be lowered.

ART FROM A WAR HOSPITAL

Drawings By the Staff of the Third London General Hospital at Wandsworth

The staff of the Third London General Hospital, Wandsworth, is recruited mainly from among art students, whose

Fig. 1. When wounded—and afterward ("Memories," by Private R. B. Ogle). This and the following illustrations are reproduced from *The Hospital*, London, which publishes a number of drawings from the exhibition by the staff of the Third London General Hospital, Wandsworth.

joyous exuberance apparently has not been tamed by the drudgery of institutional life and the tragic scenes by which they are surrounded. This hospital has been made

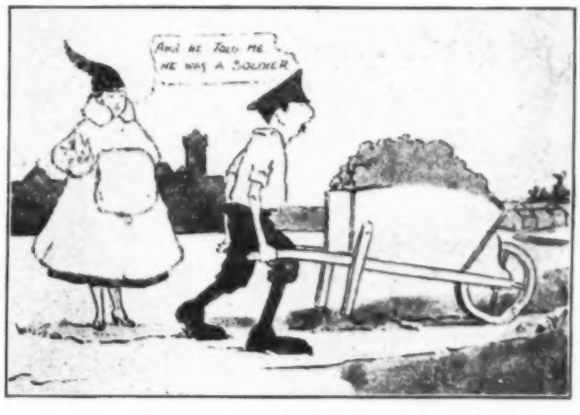

Fig. 2. "The Discovery," by Lieutenant J. A. Grant.

famous by the artistic productions of its staff, which have been published in the hospital's gazette and have recently been exhibited in London. Most of these drawings take up the lighter side of hospital and military life, though some

are serious or sentimental. The always interesting *Hospital* of London, which reproduces a number of these pictures, is moved to make the enthusiastic suggestion:

Fig. 3. "Types of the British Army," by Lance-Corporal J. H. Dowd.

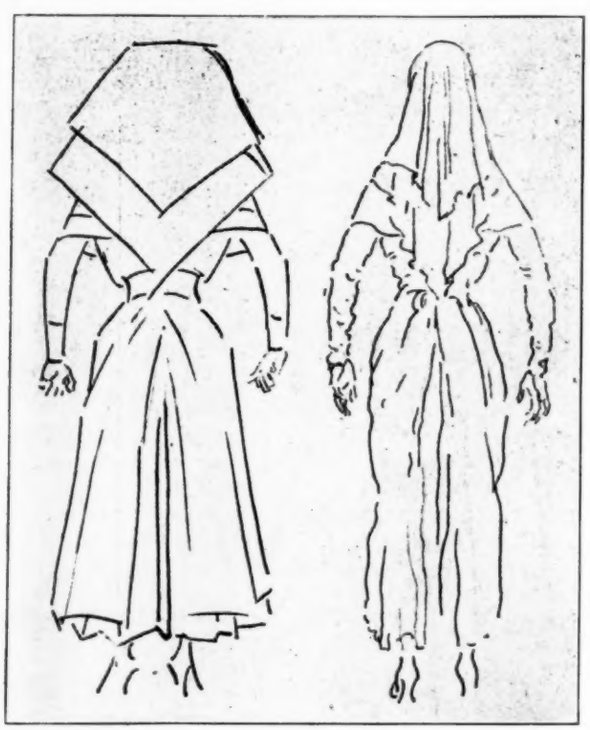

Fig. 4. "The Starch Shortage," by Lance-Corporal J. H. Dowd.

"Why does not every hospital possess its own artists? Why have they been content to possess a publicity department, in which the draughtsman has no share? The faculty of drawing is not so rare as it is supposed to be. The truth is that that which is never looked for will never be found. . . . In days when the drawing of advertisements has become a profession, there can be no excuse for not adopting the hospital poster. But the ideal should be for each hospital to produce its own draughtsman."

We are republishing some of these illustrations from *The Hospital.*

* * * *

Vegetable Gardens for Hospitals

As an instance of what hospital gardening can supply, remarks *The Hospital*, London, we give the following account of the work during the late season of the matron of a fever sanatorium with eighty beds. Thirty pounds of jam and jelly were made; five dozen bottles, the maximum number obtainable, of fruit were preserved; a good supply of walnuts, damsons, onions, tomatoes, red cabbage, and beetroot was pickled; and in addition 50 pounds of apple and tomato chutney were made. The flower-beds, too, were utilized for the production of lettuce, radishes, onions, parsnips, carrots, turnips, etc., while all other ground available was dug up and planted with potatoes, artichokes, dwarf beans, cauliflower, and many other vegetables, the seeds of which were sown by the matron, who afterward planted out the seedlings in the allotted space with the happiest results. It is interesting to note that, although this was a first attempt on newly dug ground, the potatoes yielded an average crop. It is encouraging, too, continues *The Hospital*, that these successes have emboldened some to make their first experiments with poultry. THE MODERN HOSPITAL will be glad to hear from American hospitals that have good results to show from institutional gardens.

* * * *

Inoculation Day

My blood the surgeons fortify
  With antiseptic serum;
The dread bacilli I defy—
  What cause have I to fear 'em?
We form outside the pest-house door
  At one o'clock precisely,
But if we get our dose at four
  We think we're doing nicely.
And in our arm the surgeon stabs
  A hypodermic squirter,
E'en as the hungry hobo jabs
  His fork in a frankfurter.
I'm full of dope for smallpox germs,
  For typhus and such evils;
For broken heart and army worms,
  For chestnut blight and weevils.
I'm doped against the bayonet
  Wielded by German demons;
But no one seems to think I'll get
  Dear old delirium tremens.

—A Private at Plattsburg, in the *Journal of the A. M. A.*

A movement to raise $250,000 for the establishment in Paris of an "Allied Hospital Unit" base hospital was launched in Baltimore in January by delegates representing the American Association of Progressive Medicine, the Society for Medico-Physical Research, the American Society of Orificial Surgeons and the Medical Society of the United States.

Col. Wood, Depot Quartermaster at Louisville, Ky., has been authorized by the War Department to proceed with the erection of a hospital for his department, to cost $50,000. The building will be a brick and stone structure, 2½ stories high.

PHILANTHROPY AND THE PUBLIC HEALTH

Conducted by THE NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR.
BAILEY B. BURRITT, General Director.
WILLIAM H. MATTHEWS, Director.
Department of Family Welfare.

Please address items of news and inquiries regarding Philanthropy and the Public Health to the New York Association for Improving the Condition of the Poor, 105 East Twenty-second street, New York City.

Nutrition Clinics and Classes*

BY FRANK A. MANNY, Special Investigator, Bureau Welfare of School Children, New York Association for Improving the Condition of the Poor.

Some years ago, a girl of 14 in a private school was found, by a comparatively untrained assistant teacher, to be suffering from a serious spinal defect. When the history of the case was written up it was found that few children of her age had received so much attention from specialists, for she had been examined at various times by a dozen or more leading men in the medical profession. She had, however, never been taken to a spinal specialist, and there was no record of an examination which was concerned primarily with ascertaining her general condition and what needs called for attention apart from the special one considered at that particular time.

The multiplication of special clinics has led many physicians to urge the advisability of providing for more adequate general examinations, and many specialists have given much of their time to meeting this need. The opening of nutrition clinics offers a means of attacking the problem, for, while the nutrition specialist has a field of his own, never so thoroughly appreciated as now by colleagues and the public, yet these special needs are involved in the whole life of the patient to an extraordinary extent.

The work of the school medical inspector has called attention to this need of coordination. Limited and superficial as school examinations are compelled to be, it is difficult as yet to estimate their present and future influence in the forward health movement. The fact that in New York city practically a million children are formally passed upon as to physical condition at least two or three times during six years of school life, marks a significant stage of progress. When reasonably adequate staff provision is made for this work, the credit side of the community health account will receive very perceptible additions.

"Anemia" and "general condition" have been among the terms included in these general examinations, but the present tendency seems to cover this field by the use of the term "nutrition."

Naturally there has been much disagreement as to the extent of the nutrition defects. One attempt to improve this condition is shown in the statement of diagnosis known as the Dunfermline Scale for Grading Nutrition, adopted by the Bureau of Child Hygiene of New York City's Department of Health in December, 1915.[1] One feature of this scale is the requirement that each child examined be placed in one of four grades: I, superior condition; II, passable; III, requiring observation; IV, requiring immediate treatment.

A test was made of this scale in the examination of nearly three hundred children successively and independently by each of three physicians. Nutrition was graded and the other defects merely indicated by check in the usual manner. As a result, defective nutrition, which is ordinarily one of the least agreed upon of the defects, showed greater agreement even than was found in teeth and much greater unanimity than was given to tonsil and nasal breathing defects.

The proportion of defective nutrition reported among New York city's children on this basis, averages some-

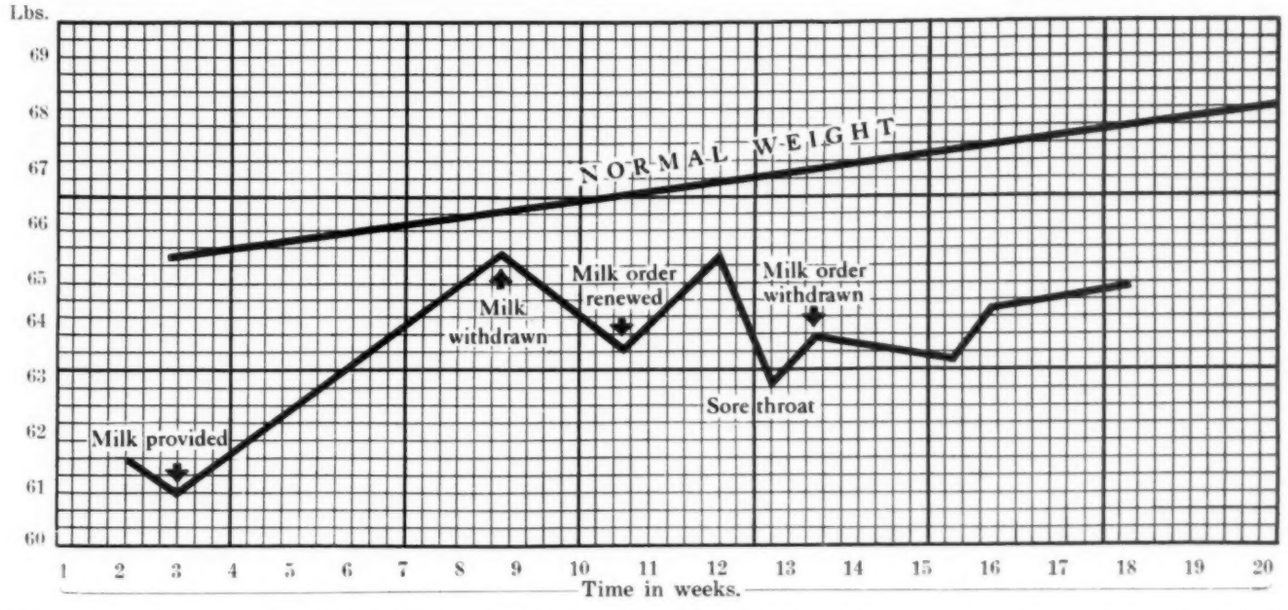

Chart 1. Emma R., aged at the beginning of weight curve 10 years 10 months, was losing weight, so was furnished a quart of milk daily and showed immediate gain. Withdrawing the milk sent down her weight, and a renewal of the supply brought an advance at once.

*See related articles by the same author on Nutritional Guidance, THE MODERN HOSPITAL, July, 1916, and Indexes of Nutrition and Growth, THE MODERN HOSPITAL, November, 1916.

[1]See A Scale for Grading Nutrition by Frank A. Manny in School and Society, January 22, 1916.

thing more than 10 percent. There is good reason for the opinion that this figure seriously underestimates the real situation. Surely no conservative study of living conditions would justify the expectation that 90 percent of the children in New York city's families are free from under-

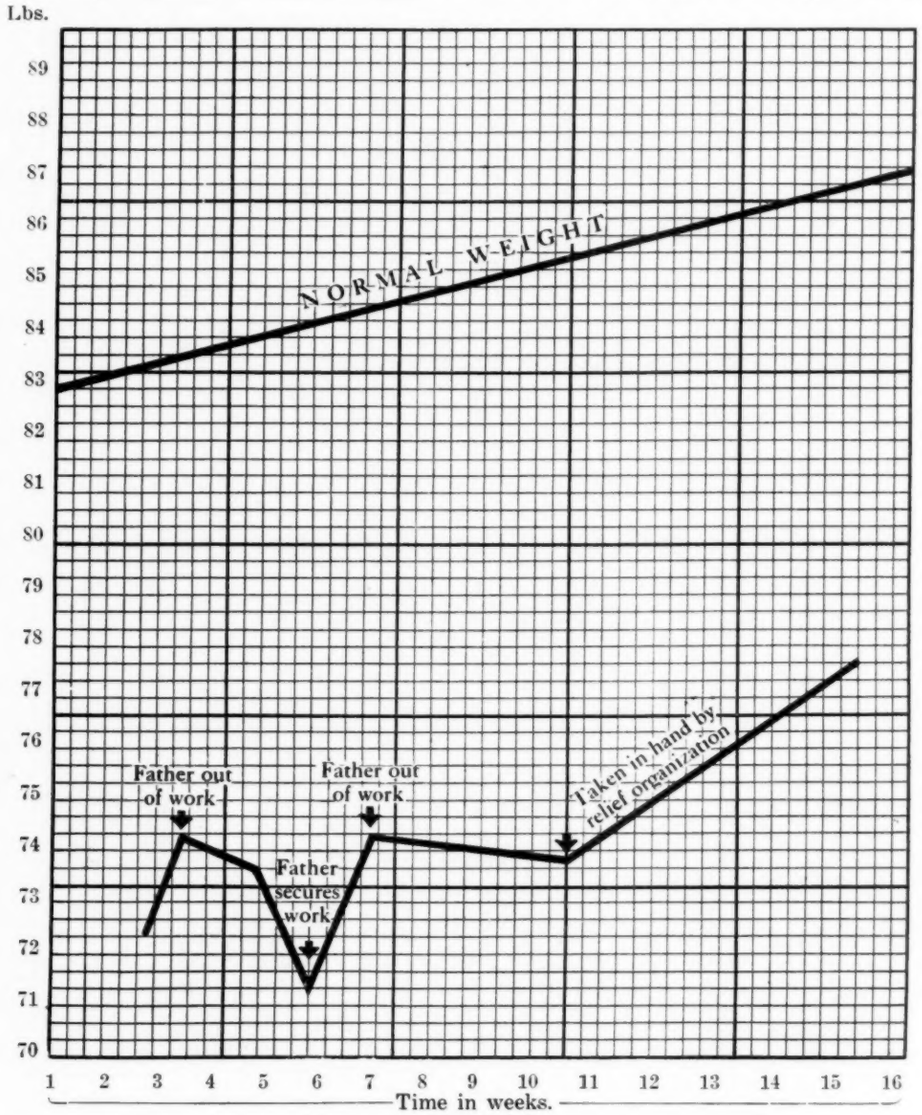

Chart 2. Hattie T., aged at beginning of weight curve 13 years 1 month, lost weight rapidly when her father lost his job, but made gains as soon as he resumed work. The final progress is due to the care given by a relief organization.

nourishment and underdevelopment. But, even at this moderate rate there are at least a hundred thousand children of school age, and as many more in the pre-school and transition-to-industry ages, who are in urgent need of nutritional care. An examination of all the members of two schools last winter brought so many pupils to the new nutrition clinic that it was soon unable to receive additional cases.

Dr. William R. P. Emerson,[1] of Boston, in the Berkeley Clinic, the Home for Little Wanderers, and the Massachusetts General Hospital, has shown the possibilities of this activity. He has made much of the presence of mothers at the clinic, and has succeeded in bringing about remarkable improvement in weight on the part of the children. He has been very successful in making use of the class system with its opportunities for competition and cooperative teaching.

In New York City the first clinic was opened at Bellevue in the fall of 1916. Dr. Linnaeus E. La Fetra is director of the work with children, and Dr. Charles Hendee Smith is in charge of the nutrition clinic. A preliminary study of nearly two hundred, who had averaged three months under care, showed that two-thirds of them had averaged more than double the expectation of weight growth at the various ages. Many interesting problems of standards of living and health have arisen in this connection.

Nutrition clinics have also been opened at the Bowling Green Health Center under Drs. Miner Hill and John L. Kantor, at Cornell under Dr. May G. Wilson, at the Post-Graduate under Dr. Morris Stark, and at the Brooklyn Association for Improving the Condition of the Poor under Dr. Oswald Joerg.

A study of five thousand cases of defective nutrition reported in the borough of Manhattan before the opening of these clinics showed that about 45 percent of these were at least nominally under the care of private physicians.

[1]See the Class Method in the Dietetic and Hygienic Treatment of Delicate Children. Pediatrics, September, 1910.

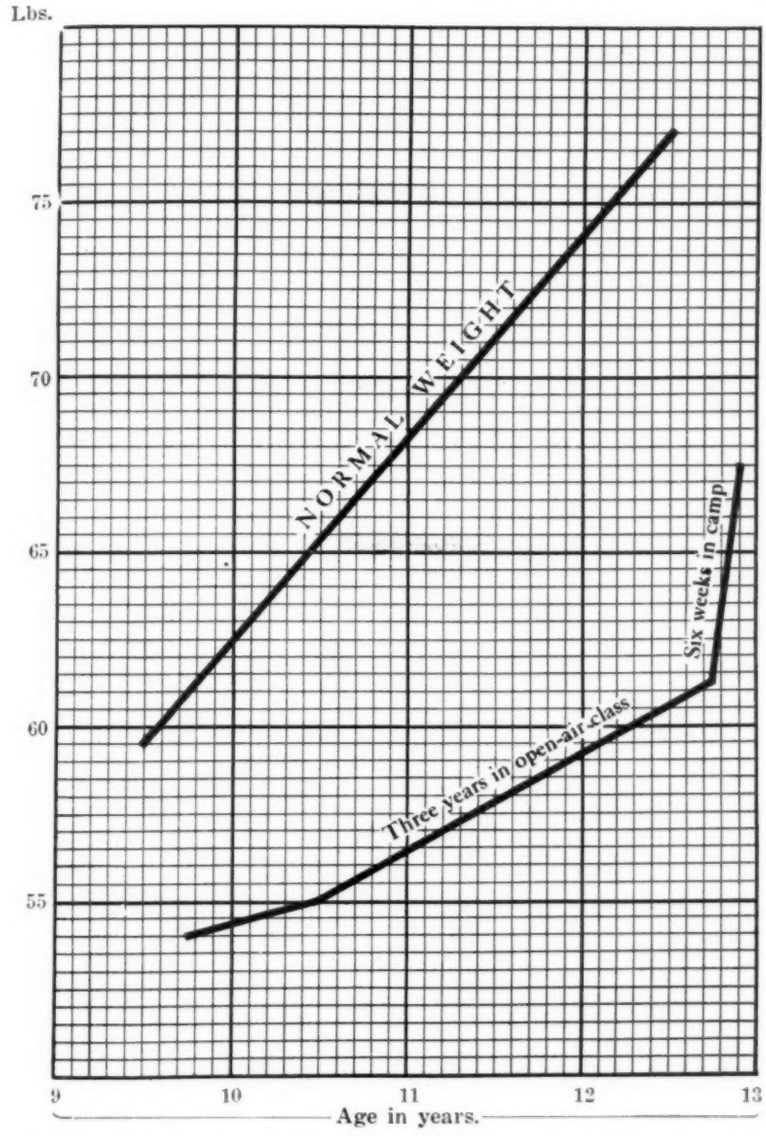

Chart 3. The weight curve of Edward J., aged at the beginning 9 years 9 months, shows the effect of three years under most favorable school conditions available and six weeks in a clinic camp.

Of those who had been referred to clinics, many were not weighed, and in some cases the care given consisted of a dose of iron, codliver oil, or salts, uniformily given to all comers according to the inclination of the doctor in charge. In some situations very little change would be required to establish good nutrition clinics, but in many of them nutrition cases receive very little attention except from social service workers and nurses.

Among these five thousand cases nearly 20 percent were neither attending clinics nor in the care of private physicians. The absence of scales in nearly all of the schools makes it very difficult for overworked nurses to find any satisfactory means of determining progress or retrogression. One of the greatest health services that could be rendered would be the equipping of all schools and clinics with scales and creating machinery to encourage their regular use. The scales should be as much a matter of course in equipment as the thermometer.

Two agencies offer possibilities of development which are as yet too often neglected. These are the open-air class room and the summer camp. Each of these is doing valuable service, but at present they are frequently unrelated to each other and bear little relation to the larger situation of which they form a part. What is needed is an agency in each school section which will serve as an observation station through which will pass the children whose condition and requirements cannot be determined without study. The open-air or special class room could well serve this purpose. In some schools at present it is congested with special cases, who remain for several years making little or no progress. The first need is the observation station in which it will be found out what course will probably yield the best results. With a definite program much can be accomplished with many cases in the homes. The children reported in Charts 1 and 2 are of this type. Effective cooperation between the school nurse, the teacher, and, if necessary, the representative of a relief organization, will soon bring these cases to a satisfactory state of growth under even fairly good economic conditions.

When this group of cases has been sifted out, at least three other classes need to be selected for various types of care. These will include all children who have need of definite medical service. Some of these require care for nutrition alone, but the greater number of them have complications with from one to ten other difficulties calling for medical or surgical treatment.[1] One group can be cared for in the clinic without any special change in school conditions. Another will gain much more rapidly if placed for several weeks or months in a special class room in which adjustments can be made for feeding, rest, fewer lesson periods, etc.

There is a fourth group which is probably larger than we now realize. This includes the children who will not reach a satisfactory state of growth until they are placed under conditions of full control by experts. These children now clog the open-air and special class rooms, increase greatly the amount of absence, and lower the level of work accomplished.

Chart 3 shows what was accomplished for one boy in six weeks at a clinic summer camp after three years of special class care. Most striking results were shown in a study made of the boys in a truant school Good food, exercise, occupation, and regular hours of retiring made the weight line of actual growth appear to be almost perpendicular.

There is need of a demonstration showing how the worst-conditioned quarter or third of a neighborhood is distributed with reference to these various groups. Until this is done there will continue to be waste and duplication of effort. The next step toward a better state of affairs seems to lie in the establishment of nutrition clinics.

The special equipment of these clinics has as yet made little progress. The food exhibit proves to be an excellent means of showing mothers and children desirable meals and possible substitutions.[2]

The Bowling Green Neighborhood Association in "Wall Street's back yard," in its new building is working out a

[1] Dr. Emerson, in International Clinics, vol. II, series 27, reports a study of one hundred "well children," 98 percent of whom were found to have one to eleven defects; 22 percent of these were 10 to 20 percent underweight.

[2] The exhibit worked out for the Post-Graduate Clinic by Dr. Stark has recently been duplicated by the Natural History Museum for use in its educational campaign.

combination diet kitchen and nutrition clinic. This pioneer health center is also attempting, by the use of library and club rooms, to meet the common difficulty of wasted time spent in waiting, on the part of the children and mothers. The most fundamental attack upon this, as well as other forms of waste, however, will be through a comprehensive

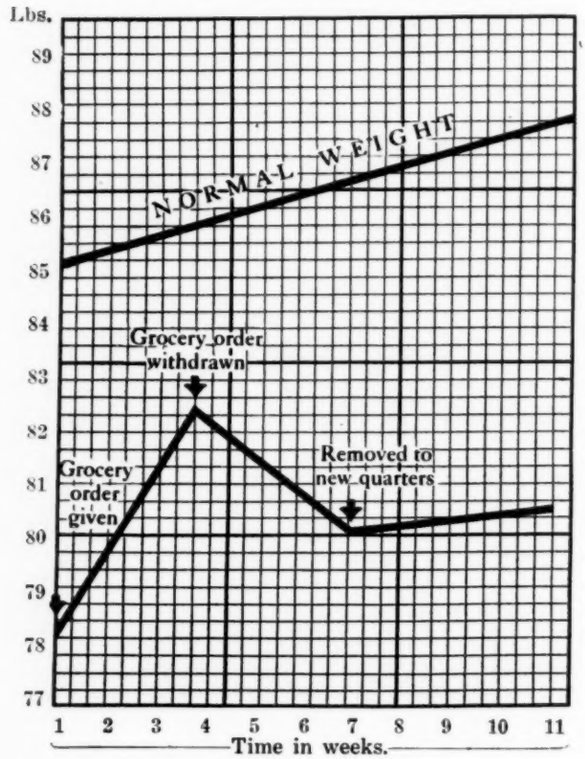

Chart 4. The weight curve of Herman L., aged 13 years 3 months, shows the effect of a month's supply of groceries, the loss resulting from a withdrawal of the order, and a quick response in weight gain on removal to more favorable quarters.

plan utilizing school and other forces to divide the field and place each case where it will be cared for most economically and efficiently.

There never has been a time when so intelligent an interest in matters of feeding and general hygiene has been so widespread as now. At this time, unfortunately, physicians and nurses are required in national service to an extent that is seriously crippling the already too limited clinic and dispensary service.[1] As a matter of health conservation, there is need of a plan which will organize most effectively whatever resources are available. It would seem that, with prevailing conditions of living, the nutrition clinic has a most important function, and that a program articulating a number of these agencies could bring together material which would answer many urgent questions as well as to give aid to thousands of families in need of help and guidance.

Graduate physicians and others who have been at some time in their careers members of the staff of Lincoln Hospital, New York City, have recently formed a permanent organization under the name "Lincoln Hospital Alumni," with Dr. Harry Wald as president; Dr. Thomas E. Freston, vice-president, and Dr. Zachary Sagal, secretary-treasurer.

[1]In a recent study of medical inspection it was startling to find how many communities are already compelled to resort to makeshift arrangements to fill vacancies caused by war demands.

WAR TIME INSTITUTION ECONOMIES

How to Meet the Increased Cost of Hospital Operation*

BY P. W. BEHRENS, Superintendent of Toledo Hospital, Toledo.

The recent increased cost of operating Toledo Hospital has been met in the following manner:

Rooms.—The price of all rooms and wards has been increased 50 percent, which gave us an income of $1,400 per month over previous time.

Operating Room.—We have increased our operating room charges 33 percent, and an extra charge of 25 cents is made per 100-gram can of ether. Each surgeon must provide and pay for his own rubber gloves.

Dressing Room.—Each patient is charged according to the material used and not according to a fixed price. The result has been that the dressing room is more than self-sustaining.

Laboratory.—In the laboratory we have increased the income in the following way: Each patient admitted is charged a fee of $2, for which the patient receives one routine urinalysis and one blood count, and all other work is charged for accordingly from $3 to $15, with the result of about $200 per month profit. The laboratory was formerly operated at an approximate loss of $125 per month.

Anesthetist.—By engaging an anesthetist at a salary of $100 plus $40 for maintenance per month, and charging the patients $3 for each anesthesia, at an average of three operations daily the hospital realizes a net gain of $130 per month. The anesthetist also operates the x-ray department, which eliminates our former plan of employing an x-ray operator on the fifty-fifty basis, which was equivalent to $75 per month. The present arrangement affords the hospital a gain of $100 per month.

Drugs.—With the exception of the more simple drugs (which are kept on the floors), all drugs are sent out from the drug room on prescription at a rate covering the salary of the pharmacist, running expenses of drug room, and cost of drugs.

Charity Patients.—To relieve the hospital treasury of taking care of charity cases, our philanthropic friends have deposited in one of the banks of Toledo an amount sufficient to meet this necessity.

To Prevent Waste.—All hospital supplies are given out by requisition or on exchange in all departments. This includes linen, surgical supplies, housekeeping, and laundry supplies.

Modern Equipment.—Modern equipment and foresight in buying supplies are two very important factors in meeting the increased cost of hospital operation. Modern equipment increases efficiency and reduces the number of help. All breakage must be paid for by the employees, which covers this loss.

Male Help.—Formerly all male help were housed and fed in the hospital, increasing expenses and causing dis-

*Read before the Ohio State Hospital Association at its Cleveland meeting.

satisfaction. This difficulty was overcome by increasing salaries $20 per month, discontinuing hospital accommodations, which resulted in a saving of $10 per employee per month. The salaries paid were $35, and maintenance, equaling $30; total, $65. At present we pay $55 and no maintenance, resulting in the saving of $10 per month, or $840 per year, reckoning on an average of seven male employees.

* * * *

SMALL SAVINGS THAT COUNT

How Hospitals May Economize While Helping in the Conservation of Coal

"The shortage of coal for every day of the ensuing year amounts to about 40 ounces or 2½ pounds for every man, woman and child in the United States," says the committee on coal conservation of the Chamber of Commerce of the United States in a recent bulletin. "Great economies in the use of coal will be effected by the factories, the central heating, lighting and power plants and the railroads. But small savings must not be neglected. Some opportunity is presented to every person every day to save coal by reducing the consumption of heat, light or power. The responsibility for making these savings is widely diffused among millions of people. The aggregate importance of them is correspondingly great. Every ounce of coal saved is an outright contribution to the nation's war-time need of fuel." Some of the suggestions which are applicable to hospitals are the following:

"*Conserve electric light;* electric current usually comes from coal. Consult your dealer as to the most economical types of lamps suitable to your conditions and fixtures. A 25-watt lamp used instead of a 40-watt lamp saves at least an ounce of coal every two hours.

"*Turn lights off when not needed;* if a 25-watt lamp or an ordinary gas light is turned off, even for short intervals, the aggregate saving may easily be an ounce of coal a day for each lamp.

"*Discard carbon filament lamps;* substituting a 25-watt tungsten lamp for a 16 candle-power carbon filament lamp provides a better light and saves two or three ounces of coal every day.

"*Burn gas in mantles, not in flat-flame burners;* the old-fashioned flat-flame gas light burner uses more than twice as much gas as a mantle burner giving more light. Each mantle burner substituted for a flat-flame burner will save probably not less than an ounce of coal a day.

"*Attend to the lubrication of machinery;* a drop of oil will often save a ounce of coal. Careful attention to the lubrication of all working parts of machinery will save many pounds of coal in the day.

"*Do not super-heat rooms;* observing the thermometer and turning off radiators to hold the temperature below 70 degrees reduces the load on the heating plant.

"*Conserve all heat and power;* keep in mind that every loss of heat or power is a loss of coal. A leak in a steam connection and a super-heated office room are alike the cause of wasted coal. Keeping a heavy power unit in operation when a lighter one would carry the load wastes coal, and so does all unnecessary use of electric elevators in office buildings."

"These methods of saving heat, light and power," says the committee, "are not unfamiliar. Everyone, perhaps, will think of some effective means of saving which is not included in this list. The important idea to be impressed on every person is that a great need exists for saving coal and that even small savings must not be overlooked."

A point which may well be impressed on hospital employees is the following: "Saving coal is not always identical with economy to the person effecting the saving. It may be someone's else coal that is saved; or the time and expense required to effect the money advantage. Nevertheless, it is a patriotic duty now to save coal at any reasonable expenditure of time and material. And in the majority of cases, there will be a direct or indirect advantage to the person entitled to the credit for the saving."

Copies of this bulletin may be obtained of the general secretary of the National Chamber of Commerce, Riggs building, Washington, D. C.

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Some Small-Hospital Economies

BY CHARLOTTE JANES GARRISON, R. N., former Superintendent Hospital Sanatorium, Kalamazoo, Mich.

In this paper nothing very original or unusual can be anticipated. This rather may be regarded as a presentation of every-day economies, born of personal and exhaustive attempts at making the most of one's budget.

The keynote in economical administration lies in the point of view of the superintendent and associates. Indifference in the attitude of the executive and heads of departments is fatal, for the most conscientious general-duty nurse will make little effort to save if her pains are not noticed and appreciated. A knowledge of prices and approximate amounts to be used will cause heads of departments to be more vigilant in checking waste and in impressing this upon subordinates. An occasional lecture by someone especially qualified to speak on food conservation has proved of value in securing a real, intelligent cooperation.

One of the most important devices for knowing costs and quantities used is an adequate requisition and stock system. The small hospital deserves and requires as accurate an accounting system and dispensing methods as the large institution. It is well to have a certain time for a responsible person to give out supplies as needed to kitchen, floor maids, and laundry. At this time, broken or worn-out articles may be exchanged or kept for repairs. A record of supplies given out may prove of value in estimating the durability or efficiency of articles as a guide to later purchases. Further, this may be a means of comparison of care used in handling tools and in the amount of supplies used for a given number of patients. Nursing supplies may ordinarily be dispensed once a week. It is of the greatest importance that there be a regular day and hour for this work, and that the heads of departments bring in requisitions promptly. In a very small hospital, it may fall to the superintendent to take over this work and in no other way is so valuable an insight into the machinery of the institution secured.

Stationery stock should be kept up, lest expensive printed forms be utilized for other than the original purpose. Blank forms or scratch pads are cheaper than printed blanks for incidental use, and should be furnished where needed. In this period of uncertain supply and high paper costs, it has seemed wise to have such forms as may be so utilized printed on both sides. The size of statement blanks and day and evening reports may be cut down with considerable saving. Almost all institutions furnish stationery, either openly or surreptitiously, to members of the hospital family for personal use. This unnecessary expense may be minimized by requiring a request for such supplies. Pens may be returned with requisition. Blotter waste is a very common sight in some

hospitals, limited only by the desire of the nurse to see her desk spotless. Indelible ink, because of its excessive cost, should not be placed carelessly on the floors, but with a marking outfit in a definite place in linen room or laundry. Smaller tags and labels cost less than the regulation size, and serve as well. All clean wrapping paper and twine may be saved with advantage. In some localities, roll wrapping paper may not be had at any price. Clean newspapers may have a multitude of uses, in the hospital without funds, as well as where paper is off the market. Sometime ago one of the largest sanatoriums in this country began to use newspapers for sputum napkins and paper bags.

It is the opinion of a number of hospital superintendents that commercial laundries can do work quite as cheaply and more efficiently than the institutional laundry. Experience proves that the properly conducted laundry is one of the greatest assets that a hospital may have. Too few institutional laundries are on a business basis, and many turn out a quality of work which no commercial laundry would dare to send its patrons. Every institution should have a cost system, and only the closest cooperation between laundry and office can effect this. Unless the washtub is in the hands of an experienced washer, the tubs will be invariably overloaded, too much soap and bleach used, and indifferent results be the price. It pays dividends to send the head of the laundry to visit other hospital washrooms, and to have a successful laundry owner on the list of one's friends. It is a poor workman who does not come back with at least one good idea, and a stimulated pride in "our hospital." Very often helpful suggestions for this department are seen in current magazines, and may be read with profit by the one in charge. The implied consideration and respect for the ability of those having responsibility of departments is the greatest stimulant of intelligent cooperation.

Someone has said that no more extravagant workers exist than those employed in hospitals. In the matter of cleaning compounds, undoubtedly treble the amount required is used. The conscientious issuing and checking of supplies handled by careless employees decreases cost. Soap powders are convenient, and economical, if purchased wisely. A good powder at a few cents more per barrel will do far better work than the cheaper product, largely composed of filler. Dispensing it in covered receptacles, with a small scoop or measure of the required amount, helps to prevent the reckless pouring in of powder. White bath soap, purchased in quantities and allowed to dry out, is a familiar saving. Soap scraps may be boiled for use in enemata or shampoo on the wards, and the excess used in the laundry. Expensive detergents, solvents, and deodorants have no place in the efficiently managed hospital, since the conscientious use of soapsuds has proved the best disinfectant available. Worn mops, pails, brushes, as mentioned elsewhere, should be brought in for inspection before new are issued. A well-aired and equipped mop closet is one of the rarest sights about the average hospital. A few conveniently placed shelves and mop and broom rack contribute to the order of this place. Time and bother may be eliminated by placing in each closet each article required in the housework of the floor, and keeping it equipped. An efficient furniture polish may be made of boiled linseed oil and gasoline in the proportion of 4 to 1, and, applied with old, soft cloth, it proves as effective as the patented article.

In the culinary department, the morale and economy seem to depend largely upon the character of the one directly in charge of the work. Especially is this true in the small hospital where no dietitian is employed. A hospital man of much experience once advised securing a woman not over 40 years of age, as older women do not stand the physical strain, nor are they amenable to suggestion. Younger women are neither stable nor interested in their work. After all is said about selection, most people take what can be had, and are thankful if it proves a wise draw. It is to be expected that a woman who has worked only in her own home will have a greater personal interest and exhibit more thrift than the average woman, who has found her employment in hotels and restaurants. In the kitchen more than any other department, eternal vigilance is the word. A close watch of the refrigerator for available left-overs, as well as for sanitary condition, should be automatic. An inspection of garbage is often enlightening. A piece of new equipment may be the means of cutting the cost, as an adequate refrigerator in permitting the purchase of meats and butter wholesale. Sometimes the only thing needed to persuade the board member to vote for the coveted piece of equipment is just an intelligent estimate of the saving to be effected. A sink at convenient height, a conveniently placed table or cupboard may be the means of saving much time and irritation for that harassed creature, the cook. A pencil and pad placed on the wall for a memorandum for supplies is a small thing, but one that may save time and effort in accumulating the required supplies for the day. In these days of uncertain supply, one who can plan meals for the small hospital for a week ahead is indeed a marvel, if left-overs are planned to be utilized as well. The menu may well be placed on the bulletin board several days in advance, giving more time to plan the work than a day. In the diet kitchen, the plan suggested by Mr. Bacon in THE MODERN HOSPITAL some time ago is saving some hospitals from 20 to 30 percent on their food cost. Inspection of trays is most illuminating, and when patients have the gratification of having a hand in the selection we find little wasted.

Insurance inspectors condemn cluttered halls, basements, and engine rooms. As soon as packing boxes, barrels, kegs, etc., become useless, someone may be found who will carry them away and pay for the privilege. Paper containers, if intact, may be returned to the company for refund. Bottles, old rubber, iron, paper, etc., now yield a very respectable sum. One institution uses the money from this source for amusements or special entertainment for patients. Another turns back to the department the amount saved, to be used for a special bit of equipment.

In visiting one of the most famous hospitals in this country, it was my privilege to talk with two heads of departments. In discussing ways and means, both the dietitian and the head of the laundry expressed the opinion that the credit for any attainment of their department should be given to the superintendent. In the words of the former, "Dr. W. is so appreciative, and so consistently supports our work that one cannot but feel like working the harder for him and for our hospital." If this spirit will bring results in our large, well-endowed hospitals, how very necessary a like cooperation for our small, poorly equipped institutions! The keynote of an economical administration may very generally be found in the character of its superintendent.

* * * *

An Institution Formerly Held Utopian Forced on Great Britain as a Practical War Economy Measure

The communal kitchen, referred to in this department last month, has come to stay, according to "A Social Worker," writing in *The Hospital*, London. A separate

kitchen and dining room for each home involves waste of material, time, and strength. Particularly is this true among the very poor, who must buy in the smallest portions and consequently at the highest prices, and prepare food hastily at the fag-ends of days devoted to labor outside the home. The results—undernourished children, overworked mothers, fathers too often addicted to drinking as an offset to the dreary monotony of unpalatable food—have long been only too obvious. Not, however, until the war, by increasing prices of food and fuel, rendered the situation unbearable, was any organized attempt made to create new conditions. Now, it seems, the communal kitchen is becoming recognized as a war necessity.

A newly opened communal kitchen at Hammersmith will, when its fifteen distributing centers are in working order, send out about thirty thousand meals daily. In all parts of Great Britain various local bodies are starting or considering their own ventures. The British Ministry of Food is undertaking to train organizers for municipal kitchens, camp and factory canteens, colleges, hotels, and other institutions.

One interesting practical experiment commented on is a communal scheme for the dinners of children at school, participated in by seven out of eleven villages in the rural district of Christchurch in Hampshire. As everyone knows, bread usually forms the staple of school lunches and other lunches brought from home. The school dinner provided by these Hampshire villages includes thick soups, stews, milk puddings, and stewed fruits, but *no bread*. The children have made satisfactory gains in weight, and the saving in bread has been estimated as 2,844½ pounds in four weeks. No charity is involved. Children aged under 7 pay 1 penny (about 2 cents); those between 7 and 9, 1½ pennies; and those over 9, 2 pennies. For this they receive two courses, soup and pudding, or stew and pudding, with second helpings if desired. Besides the two very important advantages of securing more satisfactory nourishment for the children and effecting a saving of bread, it is remarked that a valuable service is performed in introducing new kinds of food into village menus.

Care of Wood and Linoleum Floors

Manufacturers of hardwood flooring tell us that soap and water ruin the finish and shorten the life of flooring. This is only too true, but it does not seem possible to cover the finest hardwood floor in the world with a coat of wax and call it either beautiful or sanitary after it has been spattered with body excreta, drainage from infected wounds, or hot solutions. Very hot water used in too large amounts and splashed in all directions and strong lye soaps and powders are, of course, unnecessary and destructive to the floors, and a moderately warm water used with neutral soap should be used only when needed and always followed by waxing with some good floor finish thoroughly rubbed in. Between the necessary washings floors may be kept in good condition by the use of oil dust mops. Dust mops raise dust and do not protect the floor finish. The same common-sense housekeeping rules apply to the care of battleship linoleum, and perhaps even in a greater degree, as the life of the linoleum depends on how long its dressing remains.

Dr. L. R. Williams, who several months ago opened a small private hospital in connection with his offices at Jonesburg, Mo., is reported to be organizing a stock company to erect a $20,000 hospital building at that place.

DEPARTMENT OF DIETETICS

Conducted by MISS LULU GRAVES,
Dietitian of Lakeside Hospital, Cleveland, Ohio.
Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Lakeside Hospital, Cleveland, O.

The editor of this department is anxious to get as complete a mailing list of dietitians as can be obtained. If you are not positive that your name is already in this list, please forward it at once, with complete address and position held in the institution.

The National Emergency Food Garden Commission has asked for a copy of our mailing list. The literature sent out by this commission will be valuable, and every dietitian should avail herself of this opportunity to get it.

The executive committee of the American Dietetic Association will meet in Chicago in February. The members of this committee will be glad to receive communications or suggestions for furthering the work of the association, or relative to the program for next year.

LULU G. GRAVES, President.

The Work of the Dietitian in the Canadian Military Hospitals

BY VIOLET M. RYLEY, General Organizing Dietitian, Canadian Military Hospitals.

I have been asked to explain the work of a dietitian in the Canadian military hospitals, and to allow the directions I have placed in the hands of each dietitian to be published. It is with much pleasure that I comply, hoping that in some way I may be of service in assisting the American dietitians to prepare for the day when they will have to face our problem in caring for their returned wounded soldiers.

The Military Hospitals Commission has at the present time over fifty military hospitals and convalescent homes, and several others under construction. These vary in size all the way from the small tuberculosis sanatorium of fifty to seventy-five beds to the large convalescent hospital of fifteen hundred to sixteen hundred beds. Possibly the most interesting point in all Canada for a dietitian is the big discharge depot at Quebec, where sometimes two thousand men are fed three times a day. A dietitian, with one assistant and two pupil dietitians, is in charge of all the food served to this large number. The year 1918 will see accommodation for between eighteen to twenty-thousand convalescent soldiers.

At the present time the dietitians are in twenty-one of the larger hospitals, in complete control of the dietary department, and are being installed in the other hospitals as fast as competent dietitians can be secured, and taught the cost accounting system in use in the military hospitals.

The dietitian can perform a work of inestimable value in planning attractive and well-balanced menus, seeing that the preparation is such as it should be and the service good. Also by using a modern up-to-date cost accounting system she can tell at the end of a week the average cost of a meal. Few institutions can afford to ignore costs; therefore the dietitian largely controls the cost by selection of her menu.

Today there is a crying need for competent, executive

dietitians wherever large numbers of people are being fed. The name "dietitian" is associated in many minds with the work of teaching nurses and supervising their work in a special diet kitchen, where the special diets and meals for private patients are prepared. This is the work of many dietitians and is of the greatest importance, but the modern executive dietitian has traveled far from this limited field of operation. Today she is in control and responsible for the food served to everyone in the institution, whether patients on special or regular diets, nurses, doctors, or employees.

Why should the food for the regular patient not receive the most careful attention? Often the variety has to be more or less limited on account of cost; therefore all the greater need for a dietitian who will insist and demand that each article on the menu should be both prepared and served as attractively as possible. A menu that is faultless may be written by many, but the product may be "hopeless," because there are two places where it may be completely ruined—either in the cooking or in the serving. This is where the dietitian comes to the rescue. She can give detailed instructions (and what is more, see that they are carried out) to her cooks regarding method, temperature, and time of cooking, and she can so route the serving that the food is served hot or cold, as the case may be.

Service is the great problem of the modern hotel. It is just as great a problem in a hospital, and all the motion study and efficiency management information available is needed to assist the executive dietitian to route her work in such a way that the everyday meal being prepared for great numbers is served attractively and well.

Conditions in military convalescent hospitals are quite different from those in a regular civilian hospital. Possibly 80 or 90 percent of the men are up and walking about, only being kept there for treatment, rest, and diet. Each convalescent home has a large dining room, and usually the cafeteria service is used for all except cripples and amputation cases. In the regular orthopedic hospital, waiters are employed in the dining room, but in all others the cafeteria is being used. It saves labor and is more efficient and eliminates the possibility of cold food.

A few of the following directions regarding the duties and suggestions regarding ideals, spirit, and importance of details is placed in the hands of each dietitian:

OUTLINE OF THE DUTIES OF A DIETITIAN IN MILITARY HOSPITALS OR CONVALESCENT HOMES

1. A dietitian's position is that of a superintendent of her own department. She plans the menus, requisitions the supplies, plans the work for all employees, and is in control of that department, and every person employed in it.

2. She is responsible for the work of all cooks, waiters, and other helpers employed in the dietary department. She must assign their work to them, supervise its execution, criticise the condition of their work rooms, their uniforms, their personal appearance, and conduct while on duty, arrange off-duty time for each, and instruct them when needful.

3. She should inspect daily the condition of the dining rooms, kitchens, refrigerators, and equipment in her department (or else, if unable to do this herself, have it done by her pupil dietitian). Only by the most careful inspection, twice a day at least, can the dining rooms be kept up to the mark.

4. The dietitian will set the standard for cooks and waiters and other employees, taste every single thing prepared for the main dining room, and see that the seasoning is correct, and a product satisfactory in every respect. She holds everybody in the dietary department up to the mark.

5. During the meals the dietitian or her pupil should supervise the serving, see whether the food goes ont in the proper quantity, see that it is hot and served attractively, also that servers are working rapidly and in the most efficient manner.

6. The dietitian plans the work for all employees. This plan varies from day to day, according to the menu, number of employees not on duty, and the weather (the cleaning program is chiefly affected by the weather).

7. The dietitian or her pupil supervises the work of a special diet kitchen, where the bed patients' trays are prepared. General articles of diet come from the main kitchen, and are kept warm, but eggs and certain special articles, etc., are prepared in the special diet kitchen, depending upon conditions.

A Few Suggestions for Dietitians

1. A dietitian's ideals and spirit should influence her whole department. It will soon be realized that she is striving to serve only food that is nourishing, easily digested, properly prepared, palatable, attractive, and well served, such as should be given to patients whose chief chance of recovery may be in proper diet. Everyone in her department must realize the importance of their work in assisting to carry out this ideal. The welfare and recovery of the patients is the goal to be kept constantly before them.

2. Not only should a dietitian be able to manage the help; it is quite as essential that she be capable of working harmoniously with other officers of the institution, oblige whenever it is possible, and make everybody feel that she is the friend of the hospital and doing everything in her power for the benefit of the institution. Confidence in the dietitian personally may mean everything to her success. Master hospital etiquette and be strictly professional. The longer you live in a hospital the more you will appreciate its significance.

3. In dealing with the help try to inspire respect for their work, because it is one of the most needed elements in their life. For instance, many waiters actually suffer through lack of respect and appreciation for their occupation on the part of the public, and it stimulates and encourages them to discover that you appreciate the fact that it requires an exceptional degree of observation, memory, power to systematize, speed, etc., to be a good waiter. Understand your help and their difficulties. Give each employee his due respect and consideration and you will generally receive the same; in brief, apply the "golden rule." In planning their work, do all your thinking beforehand, and never ask the wrong person to do a piece of work. An employee is often very sensitive about his dignity, and will walk out sooner than do a duty usually performed by a man a little lower down in the scale. If you discover a malicious trouble-maker, remove him at once. One such may undermine your whole discipline.

4. Be equal to emergencies when every plan is upset without a moment's notice. A patient or guest cannot understand the cause if dinner is poor or unsatisfactory. He does not know that possibly the delivery failed to arrive or the shipment was returned as unsatisfactory, or that the chef is ill, etc.

5. A dietitian should train her pupil dietitian in every branch of administrative work in her department, so that she can plan the work efficiently, keeping in mind the variations in the menu, and number of employees available, etc. The pupil should supervise the serving of food, issuing of supplies by storekeeper, and other activities, and learn to know what every employee should be doing each hour of that particular day, so that she may intelligently manage that department. She should also gain experience in buying or requisitioning in large amounts.

6. Use good business methods in planning menus. Always consider food values, but also popularity, cost, equip-

ment, and labor available. Try to combine all these wisely as far as possible.

7. Use discretion and common sense in making your menus and in buying or requisitioning. There is as much danger in misdirected economy as in extravagance. True economy will strive for the best results, with absolutely no waste. Poor economy will economize on possibly one point, forgetting half a dozen others. For instance, in preparing creamed rice, you may save 5 cents per pound by buying a cheap rice, but it requires to prepare it the same amount of overhead charges, expensive service, milk, and eggs. Result of the poor rice, an inferior, unsatisfactory dessert, and waste. By using a good quality, the cost is increased possibly a fraction of a cent per order, but the result is entirely satisfactory and there is no waste. This illustration will hold good in many other instances that could be mentioned. A satisfactory diet will not be the cheapest, but it is the only thing that will meet the requirements of patients and the public and the ideals of the Military Hospitals Commission. Finally, study efficient methods and keep abreast of the times.

It is suggested that all dietitians should read "Shop Management," by F. W. Taylor, and "The Twelve Principles of Efficiency," by Harrington Emerson, etc., as they contain many helpful suggestions. The successful dietitian must be enthusiastic and put her work above every other consideration.

Dietitians must never lose the sense of proportion. Put *first things first*, and certainly the most important thing by far is to see that the food is prepared in the proper way, with a maximum of attractiveness for the money expended. Have each single article on the menu as perfect as possible, both in preparation, seasoning, and appearance. This is the chief work of a dietitian. Criticise your chef. Your menus must be prepared according to your ideals, not according to his, unless you heartily approve of his methods. You must set the pace for him. Issue your instructions through him to kitchen help, if you prefer, but insist that he have them carried out.

The attractive preparation of food is nothing short of a real social service. With the very sick it is often their only pleasure; they look forward to their three meals a day, whether their three meals are only liquids or a more elaborate menu, but what a sad disappointment, if on liquids, if the lemonade is not properly flavored, or lukewarm, or the soup is poorly seasoned, etc.! The well need just as careful consideration (aside altogether from the fact that scientists have found the secretion of gastric juice to be directly influenced by the palatability of food) because the three meals, particularly in a hospital, are the most important event in the day's program, and no single individual in the whole institution can render as important a service as a wide-awake dietitian who sees that those three meals go out as perfect in every detail as possible.

A dietitian's success depends almost entirely upon her appreciation of the great importance of the details. The details in a dietitian's work are the big things and no dietitian will be a true success until she fully realizes this. Note:

Is your gravy an attractive brown color? Is it properly seasoned? Does your chef use the flavoring in his meat pans to the best advantage?

Are your soups varied? Is each one *always* tasted and criticized and approved by the dietitian before being served?

Are your vegetables seasoned and as attractive as possible?

Potatoes, particularly, should be carefully watched. Are they mashed well and beaten until like whipped cream—never soggy or heavy or yellow?

Is the porridge of the right consistency and properly salted?

If serving a fruit salad, are all the ingredients in almost uniform sizes? Are the sections of orange diced and the whole as attractive as for the most expensive wards? There is often no difference in cost except a little in supervision and labor. Vary your fruit salads according to the season of the year. Occasionally a small dice of raspberry jelly or, in cherry season, raw cherries look attractive and are well worth while in increased variety.

All custards, blanc manges, bread puddings, cottage puddings, jellies and baked rice can be prepared in the oblong baking dishes and cut into twenty-four, twenty-eight, or thirty-two pieces, according to the size of dish and thickness of the dessert. If serving a large number, the greatest speed is attained if desserts are all cut first, then one man lifts each section with a slice and pushes off with a knife, while an assistant removes the dessert saucers as fast as he can serve. Speed and accuracy can be obtained, and the servings are uniform and attractive. If a sauce is used, a third party can serve it. Particularly in a large institution where a great number have to be served, system and motion study are necessary to save labor and get the best results.

Under no circumstances allow the bookkeeping and accounting end of your work to become the big end. The planning of menus, supervision and regular tasting of everything is of vastly more importance, and the dietitian must never lose sight of this. Bookkeeping is done in between meals because a dietitian cannot remain in the kitchen constantly and she does not need to do so. Accounts are principally for the information of the dietitian. She can list the cost per serving of each article she serves and more intelligently plan her menus. Often the food values and the attractiveness are about equal between two dishes, but one considerably less expensive. A saving of one cent per meal through more efficient selection with a population of 250 people means $7.50 a day, or $2,737.50 saved in a year, and possibly quite as attractive and nourishing dishes, but selected so as to take full advantage of the season of the year and market conditions.

A large part of the routine of the bookkeeping should be done by the pupil dietitian, because in some institutions (depending upon the chef) the dietitian in charge will have to give most of her directions personally. The pupil must be accurate, otherwise she will not be fit to assume control of such an important enterprise later. The chief dietitian analyzes these cost reports, possibly assists on them, but must not be lost in the detail or neglect her more important duties. The dietitian plans the menus and will usually make out the requisition, but the pricing and deduction from stock cards and entry on spread sheets can largely be done by the pupil dietitian, leaving the dietitian in charge more time to analyze results, study prices, and think out improvements to increase efficiency in her department.

If possible, interest some of the local societies or school children in your department so that your dining room can be constantly supplied with either cut flowers, flowering plants, or ferns. The bare appearance is removed from the dining room and quite a different atmosphere created by flowers.

Suggestions for Training Pupil Dietitians

An applicant for training as a pupil dietitian should

have as a foundation a good general education with a junior matriculation or its equivalent, plus two years' work beyond this, one year at least having been devoted exclusively to household science subjects.

She must already have received her full professional training in dietetics and nutrition, food preparation, cookery, invalid cookery, physiology, and other necessary subjects. During her training as a pupil dietitian, she puts this knowledge to practical use, develops her executive ability, studies institutional management, keeping of accounts for a dietary department, planning of work for employees, and everything pertaining to the efficient management of a dietary department.

Dietitian
- Food expert
  - Teach of food preparation.
  - Diet in health.
  - Diet in disease.
- Trained administrator

The following suggestions deal almost entirely with the pupil's training in administration, because it is assumed that she is already a fully qualified graduate who needs no instruction in the principles of food preparation, but merely to become accustomed to the purchase and preparation of food in large quantities.

The dietitian should train her pupils strictly to observe certain points while in training.

As to professional etiquette, certain things are expected in a hospital and must be strictly observed. Pupils must be businesslike when on duty.

Promptness to a minute in coming on duty and going off is essential, for, unless a pupil is conscientious, how can she criticise employees for laxness?

Pupils must never come on duty unless in uniform, even for a short time.

Pupils must never, during duty hours, write personal letters or read books not directly related to their work. If there is any spare time it is needed to study business efficiency, institutional kitchen equipment, and review diet in disease, etc. Pupils should keep notes upon every branch of their work while in training.

When off duty pupil dietitians are considered graduates and are never subjected to rules like undergraduate nurses, regarding when they retire, etc. They enjoy perfect freedom in every respect when off duty.

The dietitian must thoroughly train her pupil to plan work for others; to do this, list on cards the duties of each class of employees from the chef down. Regarding the cooks, list the class of food that each considers his own special province for the information of the pupil, but definite directions must be given with tact and discretion, depending entirely on the capability of the chef and cooks.

Tabulate duties of kitchen men, storemen, cleaners, waiters, pantry men or dishwashers between and during meals. Each man's card will somewhat resemble the following:

TIME TABLE CLEANER No. 1

7:00– 7:30.	Tidy garbage can room and sweep it.
7:30– 8:00.	Employees' breakfast.
8:00– 9:00.	Assist in the serving room at work to be assigned. (Patients' breakfast.)
9:00–11:30.	Special cleaning; see list below.
11:30–12:00.	Employees' dinner.
2:00– 1:00.	Patients' dinner. Assist in serving room.
:00– 4:00.	Special cleaning; see list below.
00– 5:00.	Off duty—rest hour.
– 5:30.	Employees' supper.
· 6:30.	Patients' supper. Assist in serving room.
7:00.	Assist dishwashers until finished, which may be before 7:00 or a few minutes later, depending on population.

Special Cleaning

	9:00–11:30 a. m.	1:00 to 4:00 p. m.
Monday	Clean refrigerators and garbage room.	Scrub the dining room.
Tuesday	Scrub chef's daily storeroom and sergeant's dining room.	Scrub the officers' mess.
Wednesday	Clean kitchen windows.	Off duty 1–5 p. m.
Thursday	Same as Monday.	Scrub the dining room.
Friday	Same as Tuesday.	Scrub the officers' mess.
Saturday	Scrub garbage room and back veranda.	Scrub the dining room.

Train pupils to make out general work plan twice a day. Waiters and dishwashers have their regular duties listed separately so do not need to be on the half daily plan, but cooks, all kitchen men and cleaners should have work planned twice a day. Absence of employees or the weather will often upset the regular schedules. The dietitian is spending so many dollars per day to buy labor; therefore see that the money is spent wisely and used to the best advantage. Employees respect a head of a department who always knows just what they are expected to do and gives directions accordingly.

WORK PLAN FOR HALF-DAY RESEMBLES THE FOLLOWING

Monday Morning

Chef	Soup, meat, gravy, salad for officers, etc.
First assistant cook	Desserts for patients and officers, soft diets.
Second assistant cook	Vegetables, potatoes and turnips.
Fred	Prepare potatoes.
Dick	Prepare turnips.
Tom	Assist cook with desserts, etc.
Harry	Clean garbage can room and refrigerators.
John	Clean corridor windows in corridor.
T. J.	See regular duties.
	Etc., etc., etc.

The duties of the pupil dietitians should also be listed for their guidance. Give each a definite time table; this will vary greatly according to the hospital. If two pupils are in training, possibly their time may be equally divided between the general supervision work and the office and bookkeeping work, either two straight months of each or, if preferred, month about. Pupils' time table will somewhat resemble the following:

PUPILS' TIME TABLE

7:00–7:30. Pupil 1 inspects dining room and kitchens, noting employees absent. She assigns work to new or inexperienced men, tastes coffee, cereal, etc., and sees that everything is satisfactorily under way for breakfast.

Pupil 2 inspects all refrigerators, both chef's and storeman's, noting contents and their condition and cleanliness. She places list of food in refrigerators on dietitian's desk.

7:30–9:00. Pupil 1 supervises the service to the main dining room, tastes everything, watches all servings, sees that hot foods are hot and served on hot plates in proper quantity, as attractively as possible, and with a proper degree of speed.

Pupil 2 supervises the service from the special diet kitchen of trays to the bed patients and sees that all food is properly cooked and in perfect condition.

9:00–11:30. Pupil 1 makes out with the dietitian the general plan of work for the day and the special plan for the morning's work. Assigns work to men, when it varies from their regular time table. Instructs new employees and teaches them. Keeps in touch with every activity in the dietary department. Often the whole morning is taken up in watching, instructing, or supervising the employees in kitchen, storeroom, diet kitchens or dining room, taking silver counts, inventories of equipment, or stock on hand, noting oiling of machinery, etc. Tastes things for the chef and assumes the responsibility of seeing that dinner is served to a minute on time.

Pupil 2, from breakfast until luncheon, spends time on office work and bookkeeping.

11:30–1:00. Pupil 1 supervises service of dining room, much the same as for breakfast.

Pupil 2 supervises diet of bed patients and service to trays.

1:00–1:30. Dinner.

1:30–3:30. Pupil 1 off duty.

Pupil 2 goes in complete charge of employees and office.

3:30–5:30. Pupil 2 goes off duty and Pupil 1 assumes charge of dietary department.

5:30–6:00. Pupil 1 supervises service to dining room.
Pupil 2 supervises service to bed patients.
6:00–6:30. Supper.
6:30–7:00. See all food put away and that night lunches are out and in proper place, etc.

Pupil must become a trained inspector, able to note in a moment anything that is wrong. List all points to be observed in inspecting dining room, serving room, and other rooms. The mere listing will sharpen observation.

Pupil must become familiar with the cost end, also the cost per serving in relation to the protein and caloric value. No matter how brilliant a dietitian is in other ways, if she is not also a good business woman she will not be a success where cost enters into consideration.

Learn the cost accounting and food control system in every detail, also keep records, according to system, outlined under separate cover.

Keep records of all employees, listing: name, address, age, position and length of time in department, rate of pay, health, ability, honesty, temperance, disposition, appearance, reason for leaving, would you re-employ.

Briefly, the pupil should develop self-confidence, decision, and judgment, combined with tact, and study carefully the psychology of directing others, so that as speedily as possible she may become a trained administrator. Note duties of a dietitian and suggestions for dietitians.

The Soldier's Emergency Ration

An interesting collection of odd foods obtained from the soldiers of various countries was recently displayed at the office of the *Christian Herald*, New York, of which that journal gave the following description: "The most ostentatious was Uncle Sam's ration of compressed maize meal with meat farina, and three chocolate bars. This ration is deficient in fats for the reason that even though hermetically sealed, it would become rancid if it carried any more fat. It is not, therefore, a balanced ration; but the container holds enough actual food to keep a soldier from starvation for twenty-four hours. The British troops, as well as the Dutch, have a sausage made of ground peas highly salted, reported to have been originated by the Scotch, and which is put up in regular sausage skins. It is said to be the most sustaining emergency ration known." An Italian butterball consists of unsalted butter encased in milk curd, which is made into a gourd-like shape, and hardens about the butter, keeping it sweet for several years. A Chinese egg was covered with a thick layer of barnyard earth, pressed about it and allowed to dry, and was guaranteed to be at least four years old. "Yet if this egg had ever been in a condition to be unwelcome, it had been thoroughly cured; the albumen was of an ebony blackness, although still soft, like gelatine, and while it did not taste like the eggs we are accustomed to eat for breakfast, neither did it taste as bad as it looked." Tea in various forms was especially interesting. Compressed tablets used by the Russians make it possible to take a "dry cup of tea" by slipping one tablet into the mouth and letting it dissolve slowly. There were also tight bundles of tea and little balls. The black bread of the Turkish forces was in thin discs six or eight inches in diameter. Other delicacies were dried bananas, smoked pears used by the Austrians, dried bamboo from Japan, and rice pressed into long sticks not unlike spaghetti, or tied in little bundles and boxed. Weird objects were dried devilfish and dried oysters impaled on sticks. The skin of a pig's foot and leg was tightly packed with ham and tied; while the spinal cord of the sturgeon is said to be eaten by the Russians, after having been used as a walking stick.

PREVENTION OF BLINDNESS

MATERNITY

A Successful Pay Prenatal Clinic*

BY MRS. WILLIAM LOWELL PUTNAM, Chairman of the Prenatal and Obstetrical Committee of the Women's Municipal League of Boston.

For three years the prenatal and obstetrical committee of the Women's Municipal League of Boston has been carrying on experimental work in providing care, by the most thoroughly trained obstetricians and nurses, for women of moderate means—the class in the community always least well cared for. The rich can afford the best care, and to the poor—a very large number of the poor—it is given free in the clinics of the best hospitals; but the women whose margin of income over outgo is small are terribly apt to get into the hands of those whose knowledge of the proper care to be given in pregnancy and at confinement leaves much to be desired.

In trying to reach women with such a clinic as this, one suffers from the fact that childbearing is such an ancient function. Women have suffered and died in childbirth since the beginning, and they expect to go on giving their lives for the life of the race to the end of time, and so they are content to go to the next-door neighbor for advice about the help they are to be given in their time of need, ignorant that much of the suffering and the greater number of deaths from this natural function are entirely unnecessary. The knowledge of better conditions is like a snowball—the greater it becomes the faster it rolls up, but the effort to start the ball rolling is heart-breaking in its slowness when one realizes the intense need for it.

Throughout our first three years of work the attempt was made to reach as many women as possible, and with this object patients were taken for the small sum which the doctors asked for their services, without making any serious attempt to pay for the nursing service at all, or, indeed, to cover expenses in any way. The doctors were paid either $5 or $10, according to the part of the city in which the clinic was held. The poorer patients live naturally in the poorer parts of the city; the doctors were the same in every case, and have always been found ready to give much more than the small charge could possibly pay for. Even this small sum was further reduced during the second year by using a sliding scale of prices graduated to fit the purses of the patients. Yet, in spite of these efforts to provide what was thought to be within the means of the women of the community, the clinics continued small. The introduction of the sliding scale of prices increased the numbers somewhat, but not to what we felt they should be. At this juncture war was declared, and as our medical director had joined the Medical Reserve Corps, his services were demanded by the government and it became necessary to close the clinics as promptly as possible.

The need of people of moderate means for what such

*This paper contains a part of the report made by the author, Mrs. William Lowell Putnam, to the American Association for the Study and Prevention of Infant Mortality, of which she is president. This portion Mrs. Putnam has kindly recast for THE MODERN HOSPITAL.

a clinic could give them seemed, however, to the experts called together in Washington by the medical division of the Council of National Defense, too great to be neglected, and, therefore, with the help of the staff of the Lying-in Hospital and in affiliation with them, the most important of the clinics of the Women's Municipal League—the one held at the out-patient department of the Peter Bent Brigham Hospital—was reopened in August of the present year.

Certain changes were made in the arrangements. We now employ our own nurse instead of being dependent on the kindness of the Instructive District Nursing Association as heretofore. The patients are delivered in their own homes, as they always were, but the nurse is present at the confinement with the doctor—a dream which we had previously never got beyond dreaming; the patients pay the cost of both doctor and nurse and any clinic charges there may be, which, thanks to the kindness of the Peter Bent Brigham Hospital, are reduced to a minimum. The most immediately interesting development is that we have already more patients coming to the clinic than we had before when they were not paying nearly the expense of their care. These results are exceedingly gratifying, for they go to show that the clinic is meeting a real need, and that we are reaching, through a self-supporting clinic, a larger number of women than were helped while it was conducted as a charity, and that we are really at last getting hold of the great class of people of very moderate means.

The charge made is not high, but we intend it to be high enough to make the work entirely self-supporting, and if we find at the end of the year that we have underestimated the cost we shall raise the charge accordingly, because we believe that self-supporting work is of far more value than that supported by charity, for not only is there no limit to its growth, but it is much more appreciated by those who benefit by it. This charge is $25 a case and payment is required. It covers visits by the patients to the clinic and visits by the nurses to the patients in their homes. At the clinic they are thoroughly examined by the doctors as early in their pregnancy as they apply, and kept track of by visits to their homes by the trained nurse at least once in ten days, and oftener if any suspicious symptoms arise. If the nurse sees any untoward signs in the patient, she is sent in to the clinic again for further examination and care. Among other matters, the proportion between the size of the developing baby and the mother's pelvis is carefully watched, in order that, should Caesarean section be necessary, it may be performed under the most favorable circumstances, etc. The nurse attends the confinement with the doctor, which is not commonly done in out-patient maternity work, but it appears to be one of the things most longed for by the patients. After confinement the doctor and the nurse pay the customary number of after-care visits, until the puerperium is at an end. This very small charge for the amount of service rendered is made possible by the willingness of the doctors to accept the small sum of $10 a case because of their great interest in building up the work. The remaining $15 covers the prenatal visits—the confinement itself, the after-care, and the clinic expenses. If ether is used a small additional charge is made. The materials for the supplies for the confinement which the patient can make herself are sold to her at the wholesale rate, and the nurse shows her how to make them up, after which, through the generosity of the Peter Bent Brigham Hospital, they are sterilized ready for use. If patients apply to us who are contemplating confinement in a private hospital, or whose means seem sufficient to pay more than $25 for the service, the situation is explained to them, and if they want to continue under our care a larger charge is made, the whole of which goes to the doctor, for the nursing service is, we believe, adequately paid for by the regular charges. Patients, also, who want the service of a resident nurse after confinement, can receive, for $15 a week extra, the service of an attendant from the Household Nursing Association, who will be carefully supervised by our nurse and later by the trained nurses of that association should she be kept in attendance after the regular period of postnatal visits by our nurse is ended. These classes of patients are not the ordinary ones, however, for whom the clinic is designed, or who usually apply for care; they are mentioned only to show the flexibility of the plan.

The charge of $25 seems as moderate as it is possible to make it, and we believe that it will meet all expenses when the nurse's time is full. That it does not strike the patients as excessive is indicated by the fact, previously stated, that already more of them are coming in than when the service was more or less free.

The people of moderate means make up the great body of the community, and, if their needs in childbirth, which are now so inadequately met, can be properly provided for, it is not difficult to see what a difference it will make in the vigor of the next generation and in the health of the women of this. It is the demonstration of the possibility of doing this in any city, through trained obstetricians and trained nurses, for a cost within the means of the average family, that we are making, and we are sure it will succeed.

CHILDREN UNDER SCHOOL AGE

A Program of Institutions Necessary for the Welfare of Young Children

Mrs. Leslie Mackenzie, in a recent number of the *Edinburgh Medical Journal*, outlines the measures necessary to supplement existing British institutions for the benefit of children under school age.

The first Notification of Births Act in Great Britain was merely permissive, and asked only for the notification of all living births to the medical officer of health in such towns as chose to adopt the act. In 1915 an extension of the act was adopted, which made its adoption obligatory on every local authority for public health, and required that every birth, alive or still, should be reported. Local Scottish authorities are authorized, with the sanction of the Local Government Board for Scotland, to make such arrangements as they see fit for attending to the health of expectant mothers and nursing mothers and of children under 5 years of age. Mrs. Mackenzie, who is vice-convener of the child welfare committee of the National Union of Women Workers, Scotland, says that these arrangements should include: (1) help and advice to the mother before the birth of the child; (2) skilled assistance at the birth; (3) continuous and skilled supervision of the child until it has reached twelve months of age; (4) medical supervision of all children from 1 to 5 years of age.

To provide for the health of mother and child, before, at, and after the birth, to the end of the child's first year, institutions sufficient to meet the demands of the population should be provided. Such institutions or maternity centers should include:

1. Consultations for expectant mothers with (a) hospital beds for complicated pregnancies; and (b) out-patient clinics for specific illness and common ailments of preg-

nancy. Arrangements may also be made for feeding necessitous women.

2. Lying-in homes for (a) complicated confinements; (b) confinements that would otherwise have to take place in unsuitable homes; and (c) a certain number of beds for post-parturient cases.

3. Baby clinics, or infant consultations, where babies may be regularly weighed and examined, and advice given to the mothers as to the proper treatment of the children.

4. A certain number of beds, or, in large centers, a small hospital, where babies suffering from malnutrition could be studied and treated. Judging from the number of badly nourished and non-thriving infants that one sees brought to baby clinics all over the country, some such properly organized hospital seems an essential part of any adequate scheme.

5. Milk depots, with properly prepared milk for infants of all ages where breast feeding proves impossible.

6. Arrangements for regular home visiting by official and voluntary health visitors, and for adequate reporting.

The organized medical care of children between the ages of 1 and 5 is a new thing, and is more difficult than the medical inspection and supervision of school children, who, being collected in the school during teaching hours, may be easily reached. The Memorandum of the Local Government Board for Scotland recommends local authorities to take cognizance of institutions which, though not in themselves medical, are convenient places for the medical examination of children, and are easily supervised. Among these are day nurseries, kindergartens, and (more recently) play centers for older children, and toddlers' playgrounds. Mrs. Mackenzie is greatly impressed with the value of suitably organized babies' or toddlers' playgrounds in promoting the welfare of puny, neglected children.

With fuller knowledge of the health conditions of all children between 1 and 5 years of age, increased hospital accommodations will become necessary, particularly institutions dealing with so-called "minor" diseases. Schools for mothers, giving instruction in the proper feeding, clothing, and nursing of children, also constitute an important part of the scheme. Lastly, the medical officer of health is to be in a position to supply an accurate medical record of the child up to its school days.

HOSPITAL PEOPLE IN THE NATION'S SERVICE

Hospitals Which Haven Sent Physicians, Nurses, and Employees to Serve Under the Colors

A service flag was unfurled by the Methodist Episcopal Hospital, Brooklyn, N. Y., in recognition of the physicians, nurses and employees of this hospital who have entered the national service. The flag contains 47 stars, but 4 more are to be added.

The Johns Hopkins Hospital publishes in its January bulletin a list of members of the hospital and dispensary staff engaged in military duty comprising 38. Thirty-nine members of the hospital and dispensary staff have resigned during the past year to take up active military duty.

The Presbyterian Hospital, Chicago, has contributed to the national service 35 doctors, 58 nurses (48 to go with base hospital No. 15), 3 orderlies, and 10 employees, making a total of 106. More staff members and employees are to go.

We shall be glad to hear from other hospitals which have unfurled service flags or sent staff members or employees to serve under the colors.

CURRENT HOSPITAL LITERATURE

ALBERT ALLEMANN, M. D., Foreign Literature.
Army Medical Museum and Library, Office of the Surgeon-General, United States Army.

Sanatorium for Protestant Children at Mouilleau-Arcachon. Jour. de méd. de Bordeaux, 1917, LXXXVIII, No. 3.

This institution was established in 1882 for the benefit of Protestant children of the city of Bordeaux who are predisposed to tuberculosis. The sanatorium is located in a pine forest, only five minutes' walk from the beach. It is open summer and winter. Since its foundation in 1882, 5,389 children have been treated at this sanatorium.

Quinquennial Survey of the Leper Hospitals in Norway, 1911-15. H. P. Lie. Christiania, 1917.

Norway has three leper hospitals, two located at Bergen and one at Strinden, near Trondhjem. The greater part of the lepers come from the northern districts of the country. Thanks to strict isolation, the number of leprosy cases is rapidly decreasing. From 1911 to 1915 the three hospitals together had 264 patients in their care, 108 males and 156 females. Of these one was cured and 98 died.

The New Dispensary for Venereal Diseases in Bordeaux. Jour. de méd. de Bordeaux, 1917, LXXXVIII, No. 7.

The new dispensary is an annex of the dermatological clinic, and consists of a two-story building with a waiting room, a large dressing room, a pharmacy, a glass-inclosed gallery for microscopical examinations, and rooms for the attendants. Consultations are held daily at 5 p. m. for women and men, soldiers and civilians. The city furnishes all medicines gratis, including arsenobenzol, which is manufactured by a French firm and which is very expensive. If any patients need hospitalization, they are housed in the dermatological clinic. During the first five months of this year 1,775 patients have been treated at this dispensary.

History of the Middleburg Hospital. D. Schoute. Nederlandsch Tijdschrt. v. Geneesk, 1917, LXI, pt. 2, No. 1.

In a lengthy article of 64 pages the author gives a history of the hospital of the old city of Middelburg, drawing his facts from the hospital archives, which go back as far as 1343. It is not known when the hospital was founded, but it is first mentioned in the year 1308. The institution had many ups and downs in the course of centuries. At times it possessed large landed estates and was wealthy; at others it struggled with poverty. Isolation of infectious diseases is first mentioned in 1494, when a "pestilence house" was built. The first surgeon visiting the hospital is mentioned in 1465. How great the hospital mortality was in those days is shown by the following facts:

During the month of January, 1584, the Middelburg hospital received 166 patients (85 males, 59 females, and 22 children). Two died on the same day they arrived, 19

in from two to seven days, 15 in from eight to fourteen, 12 in from fourteen to twenty-nine days after entering the hospital. Eleven more of the 166 patients died in the following February. Thus the total mortality was 59, or 35 percent. The buildings have been frequently changed and remodeled. The present hospital dates from 1866. The article is accompanied by a number of illustrations and portraits, among the latter that of the famous Dodonaeus, one of the physicians and benefactors of the hospital.

Vocational Reeducation. A. Nyno. Paris Méd., 1917, VI, No. 49.

The present war has produced an enormous number of cripples in all armies, and all the belligerent countries have established institutions where the crippled men are trained in some trade that will enable them to make a living in spite of their bodily defects. The Belgian government has established such an institution at Port-Villez, to which the author has been attached for more than a year. The most varied trades are taught at this establishment. The institution has numerous and extensive workshops, many of them provided with machinery driven by electric power. The great progress made in the manufacture of artificial limbs enables the most severely crippled men to learn some trade and to make their own living.

The Systematization of the Hospitals of Milan with Reference to the Construction of a New Hospital. Attualita med., 1917, VI, No. 8.

In 1914 the board of hospitals of the city of Milan decided to erect a new large hospital. During the last few years, hospital accommodation in this great city has been very insufficient. During the year 1916 the great Ospedale Maggiore treated 31,974 patients, while during the same year nearly 10,000 patients asking for admission had to be rejected for want of space. While the Ospedale Maggiore with its numerous pavilions is located in the southern part of the city, the new hospital, for which the plans have now been completed, will be erected in the northern part. It will be built on the pavilion plan and contain 1,500 beds. It is also planned to convert a number of pavilions of the old hospital, which is now overcrowded, into pavilions for special diseases.

How the People of the Western Provinces Are Endeavoring to Provide Hospital Accommodation for Their Rural Sick. Canad. Med. Assn. Jour., 1917, VII, No. 9.

For a long time hospital accommodation in the western provinces of Canada has been a pressing problem. Last year the legislature of Saskatchewan passed a law providing that two or more rural communities may cooperate with one or more urban centers for the establishment of a municipal hospital. Each municipality had the power to levy a rate not exceeding two mills on the dollar on all assessable property for hospital purposes. The province of Alberta soon afterward followed this example and passed a similar law, while similar enactments are soon expected in Manitoba and British Columbia. These rural hospitals are of immense benefit, especially in maternity cases and emergency sickness. "We are saving the lives of our women at the small cost of three-quarters of a cent per acre," writes a correspondent from the West.

About four rural municipalities require a hospital of twenty-five beds, besides quarters for the staff. The cost of such an institution is estimated at from $1,200 to $1,500 per bed, or between $35,000 and $40,000. Raised by debentures spread over a term of thirty years and borne by the municipalities in proportion to their assessable value, this expenditure represents a very modest increase to the homesteader's taxes. The expenses for maintenance are also very reasonable, as the Saskatchewan government makes a grant of 50 cents per day for every patient in the hospital. In connection with this movement the commission of public health proposes to establish a system of district nurses, who will visit the county schools, give prenatal instruction to expectant mothers, and act to some extent as a connecting link between the people and the hospitals.

The French Hospital at Jassy, Roumania. Presse méd., Paris, 1917, No. 44.

As soon as Roumania entered the war, France sent a body of physicians, surgeons, and nurses, with a complete hospital equipment, including the necessary apparatus for carrying on Carrel's famous method of wound treatment, to the Danube country. The hospital was first established at Bucharest, with 347 beds, and did a great work. When the Austro-German advance rendered the evacuation of Bucharest necessary, the hospital was removed to Jassy, the ancient capital of Moldavia. Here it was installed in the convent of the Sisters of Sion, with a capacity of 225 beds. The hospital is divided into two distinct divisions—one for septic, the other for aseptic surgery—each with separate operation, sterilization, and dressing rooms. It is under the management of Dr. Sorrel and Dr. Moure. The work and devotion of the French ladies who are doing the nursing service, and two of whom gave up their lives in the work, is beyond all praise.

Heliotherapy in Great Britain—Records of an Experiment. Charlotte Warner, M. D., Brit. Jour. Tuberc., London, 1917, XI, No. 4.

The author shows that heliotherapy is practical in northern climates, though less favored by sunlight. Rollier's method of treating tuberculosis was carried out at the Abergele Sanatorium, situated on the north Welsh coast. This sanatorium fulfills the five essential requirements for heliotherapy—namely, sunlight, dust-free air, a dry soil, shelter, and last, but not least, intelligent, skilled, and conscientious nursing. Rollier's method was somewhat modified and adapted to the shorter British summer. The "acclimatization" period was reduced to about a week, and the initial exposure increased from Rollier's five minutes to ten and even to twenty minutes. Though only twenty children have so far been treated at the institution. the results have been very gratifying, and the author concludes with the remark that "the practice of heliotherapy revolutionizes the routine treatment of the disease."

An Open-Air Industrial Experiment for Tuberculous Cases —The Hairmyres Colony, Lanarkshire. N. Bardswell. Brit. Jour. Tuberc., London, 1917, XI, No. 4.

This institution is designed to give prolonged treatment and training in open-air work to patients in residence in associated sanatoriums who give promise of making a permanent recovery. The colonists will get a course of training in farming, market-gardening, forestry, etc. About 7,000 acres of land have been acquired for this purpose. The buildings now under construction are the following: an administrative block, a male pavilion for 48 patients, a female pavilion for 48 patients, a children's pavilion for 48 patients, an open-air school and an observation pavilion for 12 patients, male and female, besides several farm buildings. The pavilions have two stories and are substantially built, the walls being formed of hollow bricks.

The whole plan of this institution shows that its conception was inspired by breadth of vision and enthusiasm, and that it will undoubtedly play a great role in the prevention and treatment of tuberculosis in the great industrial districts of Scotland.

The Helio-Marine Treatment at the Wallerstein Sanatorium at Arcachion. Jour. de méd. de Bordeaux, 1917, LXXXVIII, No. 6.

Arcachion, on the coast of the Bay of Biscay, is one of the most favored places in the world for the treatment of tuberculosis. Though it lacks the element of altitude, it has the three great advantages of plenty of sunlight throughout the year, of lying on the seashore, and of being on the edge of extensive pine forests. During the last twenty-five years numerous sanatoriums for tuberculous patients have been established in this region, of which the Wallerstein Sanatorium is one of the oldest. It was founded in 1895 by the philanthropic spirit of Madame Wallerstein. It has room for forty children in winter and for fifty in summer. Boys between the ages of 4 and 12 and girls between the ages of 4 and 18 are admitted. The children are exposed to the sunlight in a specially constructed solarium on the beach, where they have at the same time the advantage of the refreshing salt air. Sea baths are combined with heliotherapy, forming a powerful tonic for the patients. On an average, 80 percent of the patients are entirely cured and 20 percent greatly improved.

BOOKS RECEIVED FOR REVIEW

Talks on Obstetrics. By Rae Thornton La Vake, M. D., Instructor in Obstetrics and Gynecology, University of Minnesota; Obstetrician-in-charge of the Out-Patient Obstetric Department of the University of Minnesota. Pp. 157. Cloth, price $1. C. V. Mosby Company, St. Louis, 1917.

The Moseley Memorial Building, Massachusetts General Hospital. Pp. 19, with illustrations. Privately printed, Boston, 1917.

Physiological Chemistry. By C. J. V. Pettibone, Ph. D., Assistant Professor of Physiological Chemistry, Medical School, University of Minnesota, Minneapolis. Pp. 328. Cloth, price $2.50. C. V. Mosby Company, St. Louis, 1917.

Physical Diagnosis. By W. D. Rose, M. D., Lecturer on Physical Diagnosis and Associate Professor of Medicine in the Medical Department of the University of Arkansas. Pp. 499, with 294 illustrations. Cloth, price $4. C. V. Mosby Company, St. Louis, 1917.

Surgery and Diseases of the Mouth and Jaws. By Vilray Papin Blair, A. M., M. D., F. A. C. S., Professor of Oral Surgery in the Washington University Dental School, and Associate in Surgery in the Washington University Medical School. Pp. 733, with 460 illustrations. Third edition. Cloth, price $6. C. V. Mosby Company, St. Louis, 1917.

A Dietary Computer. By Amy Elizabeth Pope, formerly Instructor in the School of Nursing, Presbyterian Hospital; Instructor in the School of Nursing, St. Luke's Hospital, San Francisco, Cal. Pp. 156. Cloth, price $1.25. G. P. Putnam's Sons, New York, 1917.

The Treatment of Infantile Paralysis. By Robert W. Lovett, M. D., John B. and Buckminster Brown Professor of Orthopedic Surgery, Harvard Medical School. Second edition, revised and enlarged. Pp. 171, with 123 illustrations. Cloth, price $1.75 net. P. Blakiston's Son & Co., Philadelphia, 1917.

Plans have been completed for a municipal detention hospital to be erected at Virginia, Minn.

QUERIES AND ANSWERS

Lighting Dark Rooms

To the Editor of THE MODERN HOSPITAL:

One tier of our bathrooms faces on a rather small light-well, only 10 feet square. The upper rooms are fairly light, but those on the first and second floors are very dark and dingy; it seems to us there ought to be some way to light these rooms up without using current all day.

A CALIFORNIA HOSPITAL.

Of course, the best way would have been to face this light-well with white glazed brick when the building was erected; it is too late for that now. Three coats of white enamel would light the rooms nicely; you could have this washed every six months and renewed every two or three years. A single coat of whitewash, made after the government formula, will be cheaper and quite effective. You can renew this every spring and fall.

Local Buying at a Loss

To the Editor of THE MODERN HOSPITAL:

In our attempts to economize in our hospital we are very much handicapped by a ruling of our board that all our buying must be done through local dealers. We pay not only a legitimate percentage for handling, but practically retail prices for everything. I have made several attempts to buy where I can do much better, but each time seem to have offended someone who has made some donation to the hospital, or is connected with our board of directors. What could I do to help this situation?

A SMALL HOSPITAL SUPERINTENDENT.

There is an ugly name for the waste of public money by giving patronage at the expense of a hospital's finances. If your board consists of fair-minded business men, tell them you know that a reasonable amount of buying should be done locally, and your trades people are entitled to it, but show them how much a year, approximately, this method costs the hospital, and how much you could save for needed equipment by getting your big orders from the wholesaler and producer. We are sure you will get results. Let us hear how you come out on this question.

The Problem of the Special Nurse and the Diet Kitchen

To the Editor of THE MODERN HOSPITAL:

Please suggest a remedy for a condition which hinders efficiency and even ordinary cleanliness in one part of our hospital. We have a hospital of fifty beds which has no training school, and deals largely with the better type of private patients, and we average between twenty and thirty graduate nurses in the house at one time. These special nurses at first prepared their trays and between-meal nourishments in the general tray room, and the dietitian's nerves were often on edge, the tray-room maid usually out of sorts, and the general duty nurses indignant, because of the apparently unnecessary demands of the special nurses, and the friction and untidiness resulting. The special nurses themselves were not satisfied, and garbled reports concerning our food and service reached me through the doctors and patients.

We therfore tried the plan of giving over to the gradu-

ate specials a suite composed of a diet kitchen for the preparation of their special diets and between-meal nourishments, and a rest room and bath room for themselves. This arrangement has not proved much more satisfactory than the first, owing, I think, largely to the fact that we cannot spare a nurse for duty here to be responsible for the cleanliness and order of the place and to control the use of supplies.

The engineer is called frequently to pump out the stopped-up sink or toilet, and recently the dietitian came to me almost in tears to ask me to look at the special nurses' rooms. The bath room tub bore evidence of the last bather, the furniture of the rest room was decorated with drying lingerie, the table still contained the remains of the last night's ice cream treat, and the diet kitchen reminded one more of the kitchen of a tenement than a room in a well-supervised hospital.

We would be very glad to hear of any plan used by other hospitals which have a special nurses' diet kitchen and provision made for special nurses when off duty.

A PERPLEXED SUPERINTENDENT.

We know of one eastern hospital that suffered long from the annoyances you mention, whose superintendent worked out the following plan: A room directly opposite and in plain sight of the supervising nurse's desk was chosen for the special diet kitchen. This was divided into two distinct parts by a long store counter and a gate which can be locked. All the equipment and supplies are kept behind the counter and in charge of a maid. Each special nurse, when she reports for her case, receives from the maid a small tray, containing two drinking glasses, two spoons, a teacup and saucer, and bouillon cup, and signs for them.

All milk, orange and lemon juice, and iced water are kept in a sectional thermos, and all nourishments are made by the maid on duty, passed over the counter, and signed for by the special nurse. We understand that the saving in milk, fruit juices, ice, and all other supplies, the efficiency secured, and the general comfort to everyone concerned, more than balances the extra amount on the payroll paid to the maid in the diet kitchen.

There is a rest room, with lockers and bath room, in the basement for the special nurses, the key to this room being kept in the office, and is signed for by each nurse who uses it. In this way it is easy to know who abuses the privileges extended.

We would be glad to hear from any other hospitals that have worked out the problem.

As to Making New Connections

To the Editor of THE MODERN HOSPITAL:

I am offered the superintendent's position in a small hospital at —, in the state of —, and should like, if possible, to obtain some information as to how it ranks with other hospitals of that size and character, and something of its working conditions.

A REGISTERED NURSE.

We have no definite information in regard to the hospital you mention in your letter, but we think you are wise to investigate thoroughly as to conditions before connecting yourself with any hospital at such a distance from your home. We suggest that you write to the secretary of the state nurses' association in that state, and, as you are a registered graduate, she will undoubtedly give you the information you require.

Buying Blankets and Linen at Current Prices

To the Editor of THE MODERN HOSPITAL:

When our hospital was first built, about five years ago, it was thoroughly equipped with the best grade of woolen blankets, linen towels, and dresser covers, and the stock bought at the time has lasted until the present time. To replace these in the same quality at present is almost impossible. Have you any suggestions that might help us?

A MIDDLE WEST HOSPITAL.

Blankets containing only a percentage of wool, and, properly laundered, are giving good service in hospitals, institutions, and hotels. Much depends on the laundering of these under proper conditions. It pays any average hospital to have the best blankets washed by hand in good neutral soap in water of a moderate temperature. For private rooms, blankets of dull blue and brown designs have given better service than the older type having entirely white ground striped with colors at the ends. The standard gray blankets work out well for wards and for wheeled chairs and stretcher carts. Cotton is at present taking the place of linen wherever possible. Linen toweling containing only a percentage of linen will have to take the place of linen until trade conditions are more normal, and the established linen houses which make a business of supplying institutions and hotels are selling well-made and attractive substitutes to meet the demand.

Landscape Gardening for the Institution

To the Editor of THE MODERN HOSPITAL:

We have had for some time a certain amount of an endowment fund set aside for landscape gardening, our hospital grounds are bare and uninviting at present, but considerable discussion is going on as to whether we should in these strenuous times spend the money for that purpose. What would you advise?

AN IOWA HOSPITAL.

If you can spend this money without denying your hospital any real present need in other equipment, by all means go ahead with your gardening. It will add not only to the beauty and "balance" of your hospital, but to the cheerfulness of everyone who enters or leaves your building.

Amount Required for Permanent Endowment of Bed

To the Editor of THE MODERN HOSPITAL:

Will you kindly give me some information concerning the amount of money required for the permanent endowment of a bed in a small hospital? We have been asked to name a price, and we have no idea how to go about stating such price. How is a thing like this worked out? On what basis could it be figured? I inclose a booklet which will give you some idea of the size of our hospital. Our town has about 25,000 population.

INQUIRER.

Your query opens up a very large field for discussion. The proper way to consider this would be on a cost basis or a basis that any sound business organization would use.

Assuming, as a basis for figuring, that the cost per patient per day in your institution is $3, and assuming that you will have an 80 percent occupancy of your beds, or a total of 292 patient days for that bed, the actual cost of operating that bed for the year is $876. Using 6 percent as your investment return, it would require $14,600 to yield $876 per year. Therefore, if you were figuring on securing from your endowment the actual amount necessary to operate the bed, you would require an endowment of $14,600. This, however, is not always possible, and it is doubtful if it could be used as a set basis for the endowment of beds. Institutions permit yearly endowments for as low as $50 and as high as $3,000. It would seem that $5,000 would be a minimum sum for dedicating a bed in perpetuity. Local conditions govern to a very large extent.

Surgical Gauze, Fumigation, and Signal System

To the Editor of THE MODERN HOSPITAL:

Would be very glad if you would answer the following:

1. A municipal hospital in a city of about 60,000, with 84 beds, two-thirds of which are a fairly active surgical service, uses 40,000 yards of a certain gauze a year, for which it pays 2 cents per yard.

a. Is that an excessive amount of gauze?

b. Can such used gauze be profitably reclaimed—i. e., washed, sorted, sterilized, and used over again?

c. Does the quality of the gauze make great difference in the possibility of reclaiming it?

d. If it can be done and is worth while, where can be found the best method or methods?

2. What is the practice of the better hospitals in regard to fumigation? Is there any sense, sanitary or esthetic, in fumigating each private room after every occupancy of whatever nature? Is not the fumigation as usually carried out a worthless procedure?

3. Is there any signal system—patients' call system—on the market with the following features? When the patient pushes the button in the end of the signal cord, a bell or buzzer is sounded during the time that the button is pushed or held down, and a light is shown over the patient's bed that remains lighted until released by a nurse pushing the button in the wall by the patient's bed. The patient may sound the bell or buzzer any number of times by pushing the signal cord button, but the light is not affected except by release in the wall. Any group of signal lights may be connected with a pilot light, located at any convenient place. This pilot light is shown when any one of the signal lights with which it is connected is lighted, but does not thereby affect any other in the group. Both pilot and signal lights are released only at the bedside. Any number of patients in the group may signal—bell or buzzer sounded and a light shown over the bed, whether previous signals have been released or not.

M. D.

1 a. In an 84-bed hospital with an 80 percent occupancy you should at all times have approximately 67 patients, of which 45 would be, by your statement, surgical. Forty patients will yield yearly patient days of 16,425. You are by your own statement using in excess of two yards per patient per day, figuring that your medical cases will use some gauze. One and three-quarters of a yard is a very liberal allowance.

1 b. This amount of gauze can unquestionably be reclaimed to advantage. Especially is this true if you can do it without additional help. The effort required is comparatively small.

1 c. It is recommended that not less than 20x24-mesh gauze be used, as a lighter gauze does not wash to advantage.

1 d. The following is given as a method of reclaiming dressings: All soiled dressings are collected in paper or cloth bags, sent to the laundry, and placed in a mesh bag. Soak over night in cold water in zinc-lined tank or washers. First thing in the morning put into washer, and rinse with cold water for ten minutes. Hot wash with soda and soap for three-quarters of an hour and rinse with hot water. Turn on steam and boil for three-quarters of an hour. Put in extractor and send moist to dressing room.

2. Several national authorities are agreed that fumigation is absolutely worthless under practically all conditions. It is not thought that this is the best possible procedure for hospitals. Unquestionably each bed, whether in private pavilion or ward, should be taken down entirely, cleaned, aired, and made up fresh for each patient. In virulent infections and in some contagious diseases, mattress and pillows should be steam sterilized if possible, then aired for at least twenty-four hours, and the rubber sheeting and bed sterilized with a 2½-percent formalin.

3. Two of the signal systems advertised in THE MODERN HOSPITAL will give you all of the features you desire. There is some question as to whether the intermittent sounding of the buzzer is desirable. It might be better to have a continuous sounding of the buzzer until such time as the call is answered. The arrangements of the pilot lights are simply a matter of wiring. You not only can have the pilot light answered at one particular point, but you can have it at three or four points—for instance, at the head nurse's room, utility room, ward kitchen, or any other place you desire.

THE NAVY NEEDS LENSES

Assistant Secretary Calls on Medical Men and Hospitals for Binoculars, Spy Glasses, and Telescopes

Assistant Secretary of the Navy Roosevelt has appealed to THE MODERN HOSPITAL to help the navy secure the use of binoculars, spy glasses, and telescopes owned by medical men and the hospitals. Those who have such articles, we know, will be greatly pleased at the honor of helping to furnish the "eyes of the navy." Please read Mr. Roosevelt's letter, and those who have any of the articles required please send them in at once. Following is Secretary Roosevelt's letter:

To the Editor of THE MODERN HOSPITAL:

"The navy is still in urgent need of binoculars, spy glasses, and telescopes. The use of the submarine has so changed naval warfare that more 'eyes' are needed on every ship in order that a constant and efficient lookout may be maintained. Sextants and chronometers are also urgently required.

"Heretofore the United States has been obliged to rely almost entirely on foreign countries for its supply of such articles. These channels of supply are now closed, and, as no stock is on hand in this country to meet the present emergency, it has become necessary to appeal to the patriotism of private owners, to furnish "eyes for the navy."

"Several weeks ago an appeal was made through the daily press, resulting in the receipt of over 3,000 glasses of various kinds, the great majority of which has proved satisfactory for naval use. *This number, however, is wholly insufficient, and the navy needs many thousands more.* May I, therefore, ask your cooperation with the navy to impress on your subscribers, either editorially, pictorially, or in display, by announcing, in addition to the above general statement, the following salient features in connection with the navy's call:

"'All articles should be securely tagged, giving the name and address of the donor, and forwarded by mail or express to the Hon. Franklin D. Roosevelt, Assistant Secretary of the Navy, care of Naval Observatory, Washington, D. C., so that they may be acknowledged by him.

"'Articles not suitable for naval use will be returned to the sender. Those accepted will be keyed, so that the name and address of the donor will be permanently recorded at the Navy Department, and every effort will be made to return them, with added historic interest, at the termination of the war. It is, of course, impossible to guarantee them against damage or loss.

"'As the Government cannot, under the law, accept service or material without making some payment therefor, $1 will be paid for each article accepted, which sum will constitute the rental price, or, in the event of loss, the purchase price, of such article.'

"Toward the end of January it is proposed to distribute throughout the country posters making an appeal to fill this want of the navy.

"As this is a matter which depends entirely for its success on publicity, I very much hope that you will feel inclined to help the navy at this time by assisting in any way that lies within your power."

Very sincerely yours,

FRANKLIN D. ROOSEVELT,
Assistant Secretary of the Navy.

A small tuberculosis sanatorium will be erected by the city of Houston, Tex., in the near future.

LETTERS TO THE EDITOR

The Difficulties of a Small-Hospital Superintendent

To the Editor of THE MODERN HOSPITAL:

After reading in THE MODERN HOSPITAL a request for letters or articles on the problems of a small hospital, I thought I would give some of my experiences as superintendent of a hospital of sixty-four beds.

When, in December, 1915, I was taken through the hospital prior to my accepting the position, while I saw superficially that the hospital was in a run-down condition, I certainly did not realize what I was getting into. To tell the truth, it appealed to me. As a nurse, I always liked to take care of the hardest and sickest patients, as well as to work for the crankiest doctors, for that kept me on my mettle. But this was a different proposition; however, ignorance is bliss.

I took formal control of the hospital January 1, 1916, and found there were private as well as city patients, and all diseases except contagious were taken in.

The medical staff consisted of twelve men, eight of the old school and four homeopaths. All city cases were turned over to the staff, but the system was the old, old one, by rotation. The man who was a surgeon in May was a medical man in September, and vice versa. The governing board consisted of twelve women, each one of them splendid in her own home life and community spirit, but sadly lacking in knowledge of the management of a modern hospital, in consequence of which they were at the mercy of their superintendent.

The finances were at the lowest ebb, and, instead of looking into the management, the members of the board preached economy. The result of the preaching was that when I came and began to search for the cause of the trouble—for I believe that to find a cure for disease one must first find the origin of it—the facts we found in brief were these:

The hospital could accommodate sixty-four patients, but the daily average was from twenty-eight to thirty. It was supposed to have a training school, but I found four pupils only; the rest were graduate nurses. I found no curriculum or teaching system. Most of the work, as in all small hospitals, was surgery, yet the technic in the operating room was the most primitive. A tray could not be found in the entire hospital; ward baskets were used instead of dressing trays. Thermometer, hypodermic, medicine and catheterization trays were things unknown. The ward patients were fed from agate dishes. The drug room, with the exception of patent medicine, was practically empty. Was it any wonder that physicians stopped sending in their patients? The store room was still worse. Two boxes of soap of one hundred pieces each were found, and other supplies were correspondingly low.

There was no system of checking household supplies for each floor. I asked the housekeeper how many boxes of matches she gave out to a floor, and she informed me "about a package a week," or, in other words, twelve boxes to a floor of twelve patients. When I told her that three or four boxes were the most that should be used she looked at me as though she thought I must have lost my reason. I am glad to say that I have demonstrated my contention by now.

The walls of the wards and rooms were of a steel-gray color, and the woodwork a dark walnut, so that the hospital gloom was enhanced. The wooden floors were scrubbed twice a week with soap and soda, and as a result most of them were peeling. The poor wood was allowed to die for the want of a little oil and varnish.

Although the town belongs to Greater New York and is only twenty-five minutes from our great metropolis, the spirit and mode of life is very provincial. The woman who sends in a glass of jelly or who belongs to one of the many auxiliaries that costs her fifteen cents a month thinks that the hospital and the superintendent belong to her. The contractor who built the hospital has been in the habit of doing all the necessary repairs; his son had charge of the electrical work; and the plumber also came through him. They are all supposed to be supporters of the hospital; in fact, they belong to a Men's League with dues of $5 a year, yet the prices they charged were anything but friendly. For instance, one day when the contractor's man was in the house doing some work I asked him to repair a window sash that had been reported broken, and when the bill came in the items read, "35 cents for cord, $5 for labor."

We wanted to put in a sink in a room we were fitting up as an emergency ward. We sent for the plumber to give us an estimate. After he left, the ambulance chauffeur told me that if I would buy the material he would put it in for me, so I told him to go ahead, gave him an order to a wholesale house and dropped the subject from my mind. Four days later he came in the office to tell me that while he was at work on the sink the contractor came in, saw what he was doing, and told him he had no business to do it as it was another man's work. Needless to say, some words passed. A day or so later he found he was short a few feet of pipe and sent the man around for it. They refused to sell it to him on the plea that he was not a licensed plumber. To confirm my suspicion I sent the man to the same store, but gave him cash and he bought the pipe. This instance will give, I hope, the idea of the conditions a superintendent of a small hospital is working under, and find the best way to combat them, and yet not to antagonize the public.

It is two years since I came here. We have painted twenty-five rooms, renovated and painted the operating room, bought new sterilizers and instruments, covered the worst floors with linoleum, oiled and polished the others, removed the bed from the delivery room, had walls painted, linoleum and delivery table put in, fitted up a nursery modeled after the Sloane Maternity, removed the children's ward from the maternity floor, painted five wards and two other rooms, reorganized the training school, and have an assistant who has charge of the teaching. We have now (January) twenty pupils in the school and two have graduated. Our daily average is forty-nine to fifty patients; our store room and supply room are anything but empty, and the $2,500 debt which I found when I came has been long since paid up. We have installed a complete Wappler x-ray machine, which has been paid for by small donations, and which has proved a good asset to the hospital.

The public is beginning to realize that a hospital is part of our community life, as the church, or the theater. To the church we go for our spiritual needs, to the theater we go for amusement, and to the hospital we go for our physical needs.

Not to have a hospital with sunshine and cheer, clean and wholesome food, and, above all, efficient nursing and modern methods to combat the diseases which befall a city is a disgrace to that city.

I hope this short account will not be taken in the spirit of boasting, it is far from my thoughts. All I want is to give some idea of the many problems which a small-hospital superintendent is called upon to deal with.

R. A. S.

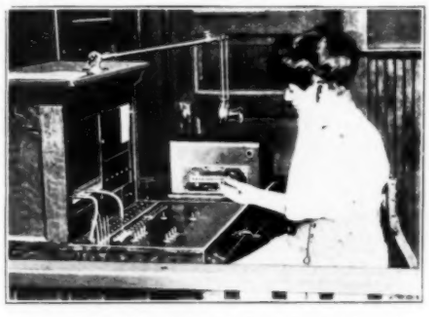
NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.
Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

Autocall Calling Service

The Autocall automatic calling service has already been installed in many hospitals and sanatoriums and consequently is no longer looked upon as a device suitable only for factories and mercantile institutions.

If the executive is absent from his office, or if an intern or visiting physician is wanted on the telephone, for either an inside or outside call, it may be known that he is in the building, but nobody knows exactly where he can be found. Without the automatic calling device the telephone operator will have to call up all of the branch telephones in the building where the person desired is likely to be. Each of these calls requires the time of the operator, and it also takes the time of the various people who answer the telephones. Often patients are disturbed and in some cases surgeons may be disturbed at a critical moment while engaged in performing an emergency operation.



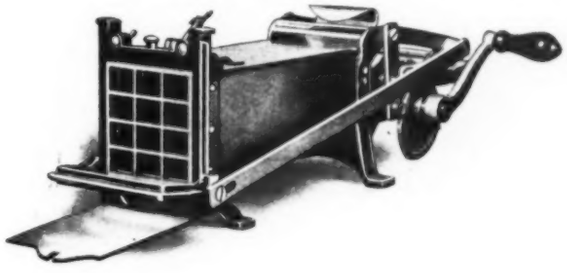
Autocall automatic calling service.

Where the automatic calling service is installed, all of these obnoxious conditions are done away with, and the method of locating a person wanted is as follows: If the individual called does not instantly respond when his telephone is rung, the operator turns to the autocall sending station, placed conveniently near the switchboard, starts the autocall service by a simple operation and the number of the person desired is sounded by soft-toned bells or by light signals conveniently located throughout the building. When the intern or surgeon hears his number or sees it flashed by the lights, he steps to the nearest telephone and receives the message, or is connected with the person calling, in cas it happens to be an outside call.

Automatic Individual Butter-Cutter

Automatic butter-cutting machines have for some years been extensively used in the larger hotels and restaurants, but they now have been taken up by many institutions. They save a great deal of time, and the hospitals that use them also report a considerable saving in the quantity of butter consumed.

The automatic butter-cutter, which is illustrated here, is especially adapted for cutting tub butter into individual patties ready to serve. This machine is of simple construction and is operated in the following manner: The butter is put into the machine as it comes from the tub. The handle is then turned, pressing the butter into a solid block, after which it is forced through the cutting die, the full face of patties being cut off by a wire attached to the yoke, which works up and down in front of the machine. The force that accomplishes all this is obtained by a plunger or face rack which runs in the trough of the machine. The racks are gauged with teeth to cut ⅜-inch and ½-inch. All parts work automatically by simply turning the crank. The machine cuts neat patties of various sizes, ranging from 26 to 90 pieces to the pound. Noncorrosive metal is used in the construction, and the apparatus can be kept clean and sanitary.



Glidden automatic individual butter cutter.

Fracture Extension Apparatus

This apparatus was designed by Dr. H. Lemon, of Milwaukee, Wis. In developing the device illustrated below, Dr. Lemon had in mind an apparatus which would serve equally well in his emergency railroad accident service and in general hospital work. It is well known that the successful treatment of fractures of limbs offers many difficulties. To set broken bones in proper position requires the employment of traction that will overcome the power muscular contractions sufficiently to permit free manipulation of the serrated ends. This requires the stretching of the muscle beyond the normal, and the retaining of the traction until the plaster cast has been applied and set. Assistants depending upon their own strength soon tire, consequently the force of the pull is inconstant; the bones are permitted to override, and, if this occurs, a poorly set fracture is the result.

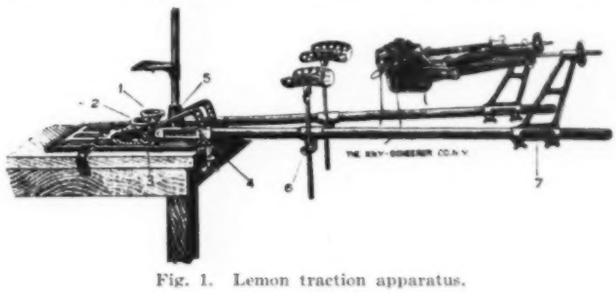


Fig. 1. Lemon traction apparatus.

The apparatus depends upon substantial screws to give the traction necessary to separate the ends of the broken bones, thus placing at the command of the surgeon great power at the cost of little effort. Furthermore, it enables the surgeon to apply his dressings without interference.

The application of Lane or Sherman bone plates in fractures, as well as the technic employed by Drs. Albee, Magnuson, and others in the treatment of fractures, is greatly facilitated by this device.

For the method of securing leg extension, see Fig. 1. The base plate may be set on any table and secured by means of the adjustable clamps at the sides and ends. The extension bars are attached to the threaded posts (1 and

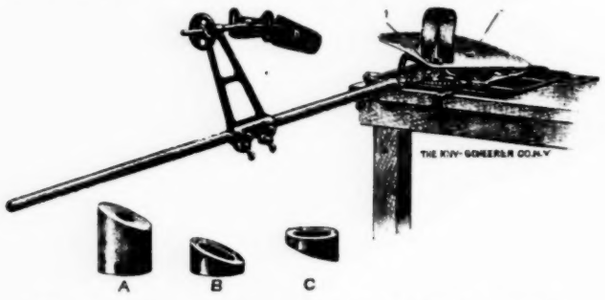


Fig. 2. Lemon traction apparatus set for lateral extension.

2), being secured by means of the large wheel screws. Large thumb pins (3) hold the bars in the lateral, and the large screw pins (4) in the vertical position. The telescopic post with the pelvic support is placed in the center socket (5), the carrying case or pillows being used to support the head and shoulders.

To secure lateral extension as shown in Fig. 2, the patient's position on the plate is to be reversed with the base plate on a table secured as described above, but only one extension bar is attached, either right or left, as may be required, and turned at right angles to the table.

Gas-Operated Isolator Incinerators

Two new types of gas-operated incinerators that will be of interest to hospital authorities have been put on the market recently by the Buffalo Co-Operative Stove Co. One of these devices is termed a "pot" type incinerator, and is illustrated in Fig. 1.

A tilting container or pot of peculiar design is installed in the interior of the apparatus. The upper rim level of the pot is slightly below the hopper receiving door of the apparatus. Gas burners are situated beneath the pot or container. When lighted, the flame impinges on the bottom of the pot and in spreading completely envelopes it, passing upward through spaced cut-outs in the upper rim to the chimney outlet. The pot is constructed so that a lobe in the bottom receives the brunt of the heat and distributes it evenly to the surrounding metal, so expansion and contraction are equalized and the destructive influence of heat resisted. On account of the pot form of construction, liquid in quantity may be disposed of with no escape of fluid into the ash pit. This type incinerator is claimed by the manufacturers to be particularly adapted for use in maternity and tuberculosis wards, for disposal of cloths, sputum cups, etc. In addition, dressings, bandages, fruit peelings, wilted flowers, etc. can be economically consumed in this type of destroyer, and the refuse may be mixed indiscriminately.

The other type of incinerator, illustrated in Fig. 2, is designed for green-garbage disposal requirements. The interior burner construction of this type comprises a series of three perforated cones, one a large center cone, and two smaller cones, one on each side of the center cone. These cones are so constructed in their lower portion that separate grates are not required. They are a combination burner and grate, the center cone acting as a dryer. Air of the temperature of the room enters the isolator through the lower ash pit door and is passed through the center cone in its travel to the chimney outlet. The center of the garbage mass is thus prepared for quick, economical incineration.

Fig. 1. Gas-operated "pot" type incinerator.

During the burning, the flame is directed directly into the garbage mass, the perforations in the cone burners acting as escape ports for the flame. By means of the plurality of burners, the flame may be directed into any part of the garbage, as one or more burners may be turned

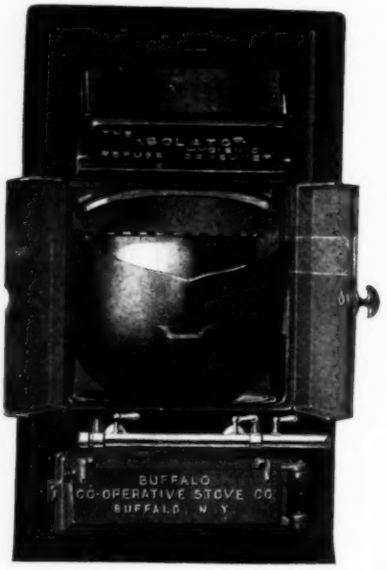


Fig. 2. Gas-operated incinerator for disposal of green garbage, etc.

off at will, permitting the remaining burner to direct its flame where it serves to best advantage in consuming the refuse; thus the economy of this arrangement is obvious.

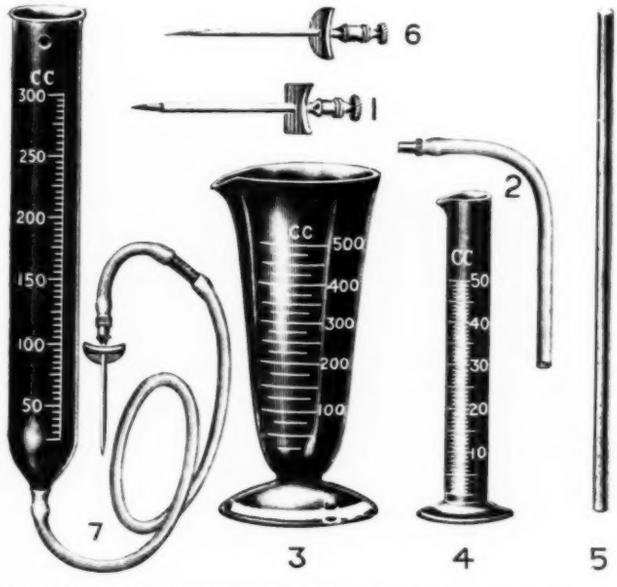
Both types of apparatus are made in two sizes, and each is equipped with an automatic gas control clock. This device has to be set before the gas can enter the burners, and it automatically shuts off the gas at the expiration of the time for which it has been set, thus constituting an important factor for safety. The isolator incinerators are

so constructed that any part can be removed or replaced by a layman, by means of a screwdriver and a pair of pinchers. Full descriptive literature concerning construction in detail and scientific process of incineration, will be furnished by the manufacturers on request.

Technic and Equipment for Blood Transfusion by the Citrate Method

Transfusion of large quantities of blood, 700 to 1,000 c.c., or even larger quantities, by the citrate method has been made possible by the extensive experiments carried on by Dr. Richard Lewisohn, of New York, and it has already become very popular in this country. Dr. Lewisohn has not devised any special apparatus for this technic, but has made use of equipment already on hand and useful for other purposes. This fact, however, does not seem to be understood, and instrument houses frequently receive inquiries concerning the special equipment necessary for practicing this technic.

The technic of the citrate method, as described by Dr. Lewisohn, is as follows: the donor is put on a table, a tourniquet applied to the arm and the vein punctured with a canula which is supplied with a pointed obturator, connector, and tubing (Figs. 1, 2). The blood is received in a sterile graduated glass jar of 500 c.c. capacity, containing 25 c.c. of a 2-percent sterile solution of sodium citrate.



Equipment used for blood transfusion by the citrate method. Figs. 1, 2, Kaliski canula, connector, and tubing for the purpose of drawing the blood from the donor's vein; Fig. 3, graduated glass jar, capacity 500 c.c., for receiving donor's blood; Fig. 4, graduated glass cylinder, capacity 50 c.c., for holding citrate solution; Fig. 5, glass stirring rod; Fig. 6, Unger canula for injection; Fig. 7, salvarsan glass jar, capacity 300 c.c., used in connection with Unger canula for injecting blood in recipient's vein.

While the blood is running into the graduated glass receptacle (Fig. 3), it is well mixed with the citrate solution by means of a glass rod (Fig. 5). After 250 c.c. of blood have been taken, another 25 c.c. of citrate solution are added from cylinder jar (Fig. 4). If less than 500 c.c. of blood are taken (i. e., in infants), the amount of citrate solution added to the blood is reduced accordingly. In cases in which more than 500 c.c. of blood are to be taken, a second glass container of 500 c.c. capacity is kept ready to be used according to the manner described above. The graduated jar containing the blood is then put aside and covered with a sterile towel to safeguard against contamination. It has not been found necessary to immerse the jar in hot water or surround it with an asbestos cover. The blood is then taken either into the recipient's room or the recipient is brought into the operating room. It is considered a great advantage that this method does not require donor and recipient to be in the same room, as this lessens the physical shock of the whole procedure for the patient; in fact, the donor's blood may be collected in the laboratory or office and carried to the patient's bedside. It will thus be seen that there is absolutely no connection between the donor and recipient; consequently the donor is safeguarded against contagion of any disease with which the patient may be afflicted.

The recipient's vein is punctured or exposed by a small incision. The canula (Fig. 6) is introduced and attached to the salvarsan flask (Fig. 7). It is advisable to fill the rubber tubing connections between flask and canula with some saline solution, so as to prevent air from getting into the circulation. After the connection is made, blood is poured into the salvarsan apparatus. In order to prevent sudden overloading of the circulation, it is advisable (especially in larger transfusions) to stop the flow of blood from time to time by compressing the rubber tubing. After the blood has been injected, the canula is removed and the transfusion is ended. The whole procedure can be performed with the greatest ease and without any hurry, because citrated blood, as has been demonstrated beyond doubt, can be kept for two or three days in a glass jar without the danger of clotting.

Dr. Lewisohn states that it is immaterial what size needle is used for the injection of the blood, but it is of the greatest importance, to insure success for the citrate method, that a large size canula be used in taking the donor's blood. He prefers puncturing the vein with a Kaliski needle (Fig. 1) (gauge 11, B. & S.), and one of the same type but of somewhat smaller size in children. For injection he uses the Unger needle (Fig. 6). Other types of needles, however, are applicable if those mentioned are not obtainable.

Universal Electrically Driven Bone Surgery Equipment with Instantaneous Stopping Device

Quite a variety of electrically operated bone surgery engines have been offered to the surgical profession during the past few years, and a number of them have been described and illustrated in these columns. Each one of these engines has some particular feature for which superiority is claimed over others of a similar type. All of the earlier types of engines were arranged so that the burr (which was for many years the only instrument used in connection with electric motors) was inserted into a straight handpiece and then actuated by means of a light cable connected to the shaft of the motor. As long as such burrs were used only in dental work and for trimming the edges of bone in mastoid work this method was satisfactory.

Very soon, however, general surgeons became interested in the possibilities of the use of electrically driven engines for the purpose of opening the skull, cutting grafts for repair of fractures, inlays of ivory plates and screws, spinal transplants, etc. It was soon found, however, that in order to actuate successfully either single or twin circular saws, greater power was required than these light steel cables could stand, because as soon as the saw took hold in the bone the cable would buckle, and sometimes it would come to grief.

Drs. Hartley and Kenyon seem to have been the first to employ successfully a small motor which was connected

directly to the electric light socket by means of a conducting cord. They also inserted the operating instruments, such as burrs, saws, cutters, etc., into a chuck or automatic clutch connected to the shaft of the motor. This method has been found very serviceable by most surgeons for such work as cutting grafts from the tibia, etc., but is not suitable in operations on the skull or in mastoid or

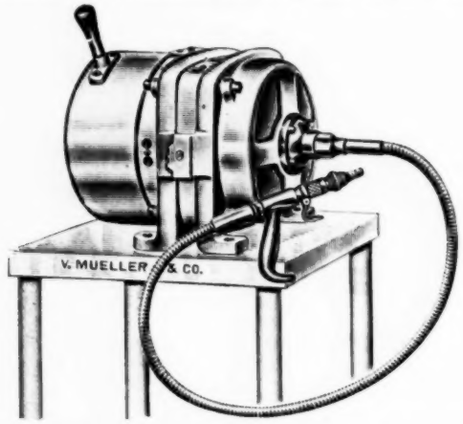


Fig. 1. Universal electrically driven bone surgery motor, cable and handpiece.

sinus work, because it is next to impossible to handle a motor weighing anywhere from seven to ten pounds and do accurate work in a cavity such as is necessary in antrum, frontal sinus or mastoid operations.

Another most important consideration when using a burr or saw is the possibility of stopping the cutting tool

Fig. 2. Round and oblong burrs for use in mastoid and general bone work.

immediately in case of an accident such as catching a sponge or towel with the burr or saw, not a rare occurrence. In practically all the operating engines put before the profession heretofore the only means of cutting off power is the foot switch, operated by the surgeon himself. But even with this device it is not possible to stop a burr or saw instantly, since even with the power shut off the

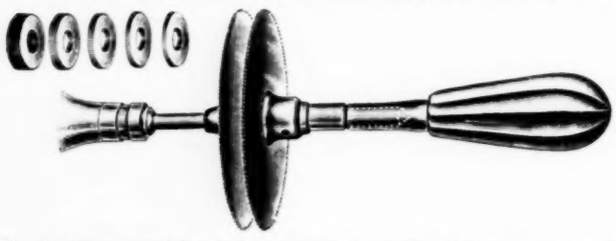


Fig. 3. Magnuson-Albee twin saw and accessories, for the purpose of cutting parallel grafts from the tibia, etc. One saw can be removed and the outfit used with one blade only.

motor will continue to revolve for some seconds, and much damage may be done before it can be brought to a full stop.

In order to overcome this very serious fault on all electrically driven apparatus, Dr. Max Halle, of Berlin, some years ago, had a handpiece constructed which was so arranged that the cable attached to the shaft of the motor would pick up and actuate the burr only when the operator put his finger on the trigger which is attached to the handpiece. The moment the trigger is released the burr will stop, and will not even make another half turn.

The Halle handpiece is now being made in this country, and it has been enlarged and strengthened so that not only sinus or mastoid burrs but all the different devices used in modern bone surgery, such as single or twin saws, dowel shapers, trephines, spiral osteotomes, etc., can be used successfully in connection with the apparatus. In order to overcome the buckling of the cable, which was such an annoying feature in the earlier types of engines,

Fig. 4. Albee taper fraise for drilling hole for insertion of dowels in fracture of hip joint.

the cable used in this equipment is several times the size and strength of those formerly used, and is covered by a spiral metal sterilizable sheath instead of a woven cloth cover.

The motor supplied with this equipment is a machine which has been wound especially for this class of work, and which will develop a full one-fourth horsepower without the use of reducing gears, etc. The motor body is entirely enclosed, doing away with any possibility of accidental shock to surgeon or assistants in touching parts of the motor which carry the current. Those who have had the experience of accidentally touching brush-holders, binding posts or other parts of a motor in the operating room will appreciate this feature. As a rule the floors

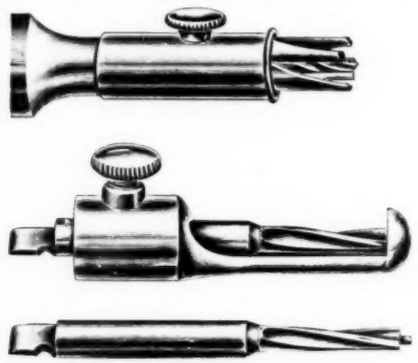


Fig. 5. Skull trephine and spiral osteotome with guard

in operating rooms are of tile or other material which carries current, so that one need touch but one side of the circuit when the current is felt.

The makers also call attention to the lubrication, which is another feature which has been carefully worked out. Ball bearings are used throughout and these bearings are packed in grease which need not be renewed more than once in from two to four years. This fact, together with the fact that the body is enclosed, make it a quiet operating machine.

There are many hospitals which do not care to purchase one electrically driven equipment for the members of the general surgery staff and another for the nose and throat department. For such institutions this new outfit seems ideal because when once the motor, cable and handpiece have been acquired the rest of the equipment that may be needed can be added from time to time as required.

I never knew any man in my life who could not bear another's misfortunes perfectly like a Christian.—Pope.

THE EYE AND EAR SERVICE IN GENERAL HOSPITALS

How It May Be Improved Through Team-Work—Stable Intern and Nursing Service Essential

Dr. Frank Allport, writing in a recent number of the *Illinois Medical Journal*, says that, while surgeons, internists, obstetricians, pediatricians, orthopedists, etc., all receive hearty welcome and cooperation in general hospitals, the eye and ear surgeon usually finds himself more or less isolated and is obliged to do his work amid many difficulties and perplexities, with a more or less reluctant and unskillful service. His patients are scattered throughout various wards, and he is therefore compelled to depend on different nurses who, though competent in ordinary cases, generally, owing to lack of training, are incompetent and often dangerous in eye and ear cases. Many eyes have been lost from the awkward, ignorant, and bungling care of incompetent interns and nurses. The surgeon, moreover, cannot know that his solutions, bandages, ointments, droppers, etc., are actually aseptic, and this, too, has caused the loss of eyes. Patients and materials being scattered all over the hospital, the instrument, drug, or appliance that is wanted is rarely on hand. Interns and nurses, being changed every few weeks in most hospitals, never reach the point of being useful.

In the operating room the trials of the eye and ear surgeon are equally numerous. Few general hospitals possess an adequate supply of instruments; the surgeon has to bring his own (generally omitting the one that he most needs), which have to be prepared after his arrival. The operating room nurse is generally new and unacquainted with his individual needs and with the care required for ophthalmological instruments. The eye, ear, nose, and throat surgeon should never be obliged to carry his own instruments to the hospital. They should be provided by the hospital, kept locked in a private cabinet, and kept in perfect order by the special and permanent eye and ear nurse and the chief operating room nurse.

Methods of relief from this unsatisfactory condition of affairs must begin with the surgeon himself. The surgeon should not change from one hospital to another, seeking to test them or to extend his acquaintance and influence, but should select one good hospital and do all or nearly all his work there. Thus he may become familiar with that hospital, and the hospital becomes familiar with his requirements. By concentrating instead of scattering his patients, he may become a financial asset to the hospital and thus acquire influence in its management, which enables him to demand constantly improved facilities for his work. He should select a hospital which admits charity cases, as without a large number of charity patients his operative experience will be too limited to admit of growth. It is well to develop a clinic day or days, when visiting doctors will be welcome at operations. The ophthalmologist should not seek to monopolize the entire department, but should encourage other eye and ear surgeons to come on the staff and help build up the department.

On the side of the hospital, the most important thing that can be done to increase the reputation of the hospital and the chances of good results to patients is to provide the eye, ear, nose, and throat department with a special nurse. For the best services a permanent, salaried, resident graduate nurse is required. If a graduate nurse is not obtainable at first, the ophthalmological department should at least be given the exclusive services of one undergraduate nurse for from three to six months. This arrangement will almost surely lead eventually to the employment of a graduate nurse who can be held responsible for all details as to preparation of aseptic solutions, care of instruments, assistance at operations, and nursing of patients. The services of an intern who will remain in the work for a year should also be secured as soon as possible. It has been found easy to secure such interns in St. Luke's Hospital, Chicago; in fact, owing to the number of young doctors who desire to become eye and ear specialists, there is always a waiting list for this position. The eye and ear intern and nurse should always have working under them an assistant intern and nurse who should remain on the service for at least three months, and longer, if possible.

The next desideratum is a special ward with an up-to-date examination, treatment, and dressing room. At St. Luke's there is a special ward of twenty beds, with backs to the windows. The ward is quiet and has a private hallway, lavatory, dining room and kitchen, and a beautiful examination room 20 feet long by 10 feet wide, containing everything necessary for the work. Besides the regular permanent nurse, there are two day nurses and one night nurse always on duty in this ward under the direction of the intern and permanent nurse.

Management of the Small Hospital

"One of the greatest assets to the small hospital," says Edith M. Redwine, R. N., writing in the *American Journal of Nursing*, "is a sufficient number of pupil nurses, with a few to spare, provided they can be cared for comfortably. Too many of our small hospitals try to economize in the nursing department, with the result that they turn out dissatisfied patients and broken-down, discouraged nurses. Such hospitals claim that many nurses make idle time, and that there is always mischief for idle hands to do. I'll give the devil his due, but in the well-regulated hospital there is always something to be done by those who look for it, and they will look for it if properly managed. Plenty of good, healthy, happy nurses go to make satisfied patients, and this is what every hospital must have in order to be a success. In the teaching of nurses, how often it devolves upon the superintendent and her helpers to teach the fundamental principles, in otherwise good material, of manners, personal habits, housekeeping. This being the case, where is there a better place to begin than at the front door of the hospital? Then carry them on through all the different departments, making of them thoroughly trained, competent women, remembering all the time that the hospital is an educational institution and not the workshop of former years.

"One of the most overlooked features in the small hospital is the front entrance. Too often it is left to the superintendent, the bookkeeper, the nurse of the floor, or to anyone who chances to hear the bell ring or finds the visitor wandering in the hall, to look after this important feature. 'Everybody's business is nobody's business,' you know. The usual excuse is offered, 'The nurses are too busy.' 'We cannot afford someone especially for the purpose.' Visitors and patients come, and go away dissatisfied; the public becomes offended, and the hospital becomes a target for criticism.

"I have never tried the following plan, because I have never had the good fortune to have enough nurses, but it seems to me that it might work well. If a probationer were placed in charge of the front entrance, whose sole duty it should be to look after visitors, showing them every courtesy, it might solve one problem for the hospital which cannot afford a trained person for the place. In this way

the probationer learns how to meet the public, she learns how to handle people, and being under constant observation of the superintendent, an insight is obtained of her real character, before she enters upon the larger work of caring for the sick. If the general office is near the front entrance, as it usually is, this probationer might be employed between times in getting a general knowledge of the office work, under the supervision of the bookkeeper. It is surprising to know how few people can answer a telephone properly, or take and deliver a message in the way it should be done. . . .

"In regard to the linen, another big item of expense, I have adopted the following plan, which has worked well: A probationer is put in charge; term of service, one to two months, according to capability shown. It is her duty to count the laundry in and out, mend that which is worth it and take to the superintendent, to be discarded or made over into other things, all linen which is too dilapidated to be mended. I try to keep a supply of new linen in the store room so that each discarded piece may be replaced immediately. This keeps the supply always the same, and one can tell at a glance just how much linen is on hand. Each department has its own linen designated by kind and color; blue bordered towels and marseilles spreads for the nurses' home; plain white for private patients; red-bordered for wards; plain white linen crash towels for operating room, and so on. This simplifies the counting of linen, as, with the exception of sheets and pillow cases, the nurse can tell at a glance just where each piece belongs. This same probationer distributes the linen to the wards and other departments, having first received a written requisition signed by the nurse in charge and by the superintendent. (These requisitions, by the way, should be issued from all departments, and nothing should be sent to the wards from any department without a requisition properly signed.) These are best issued on printed forms, as this saves time, but in the absence of such, should be written out by the nurse and should have the date, number of patients, amount asked for, amount sent out, and amount received. This method, you see, enables the superintendent to keep track of things. The linen nurse has charge, also, of the nurses' home, seeing that beds are changed at stated intervals, distributing towels, soap, and other necessities, directing and assisting the maid when any special cleaning is to be done. She knows when new linen is purchased and its cost. Each Saturday night a written report is placed on the superintendent's desk, stating the amount of linen torn or lost in the laundry. In this way the probationer is given a practical lesson in economics, and the work is accomplished without the employment of an outside agency. One rarely finds a nurse who has had charge of this department who cannot work to much better advantage and who does not understand true economy.

"I manage the drug department and store room supplies in much the same way, though this time a senior nurse is placed in charge. She sees to the daily distribution of drugs, fills such prescriptions as she may, makes the ward solutions, gives out weekly supplies, and reports to headquarter any waste or undue usage of drugs in her charge. A want book is kept, in which is placed daily a list of drugs and supplies of which the stock is low, with special mention of those needed at once. To her are taken all broken and worn-out articles to be replaced. Of these she keeps a record, with dates. (The nurses are required to report and pay for breakage.) She knows the cost of the drugs, keeps up with the rise and fall in prices, knows when it is best to buy in quantity or in small lots, learns when to buy and when not to buy. For instance, at the beginning of the European War, when there was a decided advance in the price of rubber goods, some hospitals I know of bought up a year's supply. We bought for only six months, figuring that it would deteriorate on the shelves after that time, but we did buy carbolic acid, and there never was a time when we did not have a goodly supply. The reason for doing this is explained to the nurses in the class room. The drug room nurse also has charge of the urinalysis room. In this manner the work is again accomplished without the aid of a pharmacist, and the nurse gets practical lessons in the handling and administration of drugs, in urinalysis, and in hospital economics.

"The other departments of the hospital are managed in much the same way. In the nurses' home, the senior of each dormitory is made responsible mentally, morally, and physically for the nurses rooming with her. She sees that each nurse exercises proper hygienic care; that she is in her room on time; and that lights go out promptly. She reports or sees that the nurse reports at once any illness, such as usual hospital sore throats, etc. A written report for the week is placed on the superintendent's desk every Sunday morning. . . ."

TRAINING OF MILITARY MASSEUSES

Remedial Massage for Treatment of Convalescent Soldiers Taught to Girl Recruits in Canada

Remedial massage for the treatment of convalescent soldiers is claiming the attention of hospital authorities in Canada, and a regular course for training eighty girl recruits from all parts of the Dominion has been inaugurated at the University of Toronto.

The masseuses are enlisted in a military sense and are regarded on a par with their nursing sisters, for, with the latter, they were the only women entitled to vote in the last election (in which conscription was the issue) because of their war service. They have been admitted to the massage school only after being declared fit for service, and agreeing to serve the Dominion in the military convalescent hospitals for one year after graduation. The course takes six months, during which they are paid an allowance of $25 a month. After finishing their training they will receive $55 a month with an additional subsistence allowance of 75 cents a day where quarters are not provided.

They undergo physicial training to qualify them for their strenuous occupation, and a staff of highly qualified instructors teach them the various subjects required to make them competent masseuses. The university provides lecture rooms, study rooms and rooms for the practice in which couch-like tables are provided.

A colonel's wife, who was doing real nursing at a certain London hospital, was recently offered a tip of sixpence by an honest old couple in gratitude for her care of their soldier son. Tact personified, she slipped the sixpence back into the father's hand, saying, smilingly, that nurses weren't allowed to accept gratuities.

"Oh, that'll be all right, Sister. I'll not say nothing about it. Just take it, and get yerself a drop o' gin in your off-time!"—Canadian Nurse.

A movement for the establishment of a hospital has been launched at Lancaster, Cal., and is receiving the support of the local chamber of commerce. Dr. F. D. Bishop is one of the promoters.

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NEWS OF THE HOSPITAL FIELD

Eastern States

Dr. John J. McDonald has resigned the superintendency of the Jersey City Hospital, Jersey City, N. J.

The Lakewood Hotel, Lakewood, N. J., has been leased by the government and will be turned into a hospital for convalescent soldiers.

The Boston city council, in a bill passed in January, authorized the expenditure of $132,500 for the erection of a hospital at the Charles street jail.

Eighteen new private rooms, a new children's ward and two new wards for men patients have recently been opened at the Maryland General Hospital, Baltimore.

The Lankenau (formerly German) Hospital, of Philadelphia, has lately received a gift of a $60,000 building, which will be converted into a maternity annex.

A home for women nurses, also a house for the farm manager and employees, will be erected at the Homeopathic State Hospital at Rittersville, Pa., in the spring.

The west wing of the main building of the Connecticut Hospital for Insane at Middletown was destroyed by fire January 10, causing a loss estimated at $100,000. No lives were lost.

Dr. J. Lewis Amster, president of the Bronx Medical Society, has been appointed health commissioner of New York city to succeed Dr. Haven Emerson, now a major in the United States Medical Reserve.

Mr. Samuel G. Ascher, until recently chief accountant of the Mount Sinai Hospital, New York City, is now occupying the position of superintendent at the Jewish Maternity Hospital, also of New York.

The Salamanca Hospital, Salamanca, N. Y., has recently opened a new addition, erected and equipped at a cost of $13,500. Eleven beds for adults, besides an infants' ward, are added to the capacity of the institution.

A bequest of $50,000 to the Altoona Hospital, Altoona, Pa., through the will of Mrs. Harriett Prevost, late of Philadelphia, widow of S. M. Prevost, formerly vice-president of the Pennsylvania Railroad, is announced by the hospital trustees.

The Board of Freeholders, of Burlington County, N. J., are considering the erection at New Lisbon of a county contagious disease hospital. The influx of laboring men of all classes to Camp Dix is expected to add to the need of such an institution.

A new, fireproof ward, with accommodations for 153 patients, was opened at the Rhode Island State Sanatorium at Wallum Lake January 1. Although only a single unit of a plant having a capacity of 350 beds, the new ward is said to be a complete tuberculosis hospital in itself.

Dr. A. J. Barker Savage, superintendent of the new Broad Street Hospital, New York city, has recently accepted an appointment as consulting superintendent to the New York Medical College and Hospital for Women and the St. Lawrence Hospital, both of New York.

Miss Grace H. Cameron, a member of the New York State Board of Nurse Examiners, has recently been appointed principal of the training school of the Frederick Ferris Thompson Hospital, Canandaigua, N. Y. Miss Cameron was formerly connected with the Thompson Hospital in the same capacity, but was compelled to resign two years ago because of conditions requiring her pres-

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ence at her home. She is a graduate of a Brooklyn hospital and some years ago was, for a time, in charge of the school of nursing at St. Barnabas' Hospital, Minneapolis.

Dr. John R. Ross, for four years assistant superintendent of the Dannemora State Hospital for the Criminal Insane, Dannemore, N. Y., has been appointed acting superintendent of this institution, to succeed Dr. Charles H. North, who was recently stabbed to death by an insane convict.

A bill for the abolition of the Board of Trustees of Hospitals for Consumptives, of Massachusetts, has been filed in the House of Representatives of that state. The measure would transfer the management of the state's tuberculosis institutions to the State Department of Health.

Miss Addie E. F. Weymouth, night superintendent of nurses in the Maine General Hospital, Portland, died at the hospital January 8, as the result of an operation for appendicitis. Miss Weymouth was a graduate of the Maine General Hospital school of nursing. Prior to taking her nurse's training she was a teacher in the Biddeford High School for several years.

A new home for the nurses of the Millville Hospital, Millville, N. J., erected at a cost of $10,000, was opened January 7th. The Millville Hospital is a new 30-bed institution, which has developed rapidly. The hospital was opened just two years ago, and the nurses' home addition is said to have been made necessary by the increasing demand for accommodations for patients.

Massachusetts newspapers record the death on January 1 of Dr. Samuel W. Torrey, of Beverly, founder of the Beverly Hospital, in which institution he passed away, following an operation. Dr. Torrey was graduated from the University of Vermont in 1865, and from the College of Physicians and Surgeons, of New York, in 1868. He was 74 years of age and had practiced medicine in Beverly for 50 years.

Miss Cora B. Lash, of Pittsburgh, was installed as superintendent of the Allegheny Valley Hospital at Tarentum, Pa., January 2. Miss Lash has lately been connected with the Presbyterian Hospital, of Pittsburgh, but has seen service in other hospitals of that city, including the Western Pennsylvania Hospital and St. Margaret's. She is a graduate of the Allegheny General Hospital, also of Pittsburgh.

In response to the government's call for trained nurses, the Pittsburgh Homeopathic Hospital has established a 2-year course of intensive training to prepare women for war work or to take the place of nurses who have left the hospitals to work at the front. The regular 3-year curriculum will be given in two years, and the course has the approval of the Pennsylvania state board of examiners for nurses, which will admit graduates to examinations for registered nurses.

Two new isolation hospitals have recently been opened by the city of Boston on the old parental school property in West Roxbury, one for diphtheria and the other for whooping cough cases. The new hospitals will be operated in connection with the Boston City Hospital and will be known as the West Department of that institution. The whooping cough hospital is said to be the only building in the United States erected especially for the care of children suffering from this disease.

Privately operated hospitals of Baltimore, which have been caring for city cases at the rate of 62½ cents a day, all that the city Board of Estimate has heretofore been willing to allow, have refused to sign contracts at this rate for 1918. The hospital authorities declare that the rate of 62½ cents a day is the lowest in effect in any city in the United States, and that the actual daily per capita cost during the last year, based on the average of all the Baltimore hospitals caring for the city patients, has been $1.99.

A unique portable and convertible field hospital ward has been designed for the American Museum of Natural History, New York City, by Superintendent of Construction H. F. Beers, of that institution, under the direction of Dr. Henry Fairfield Osborn, president of its board of

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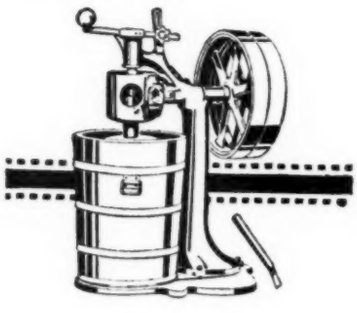

The help objects to hand freezers. Then, too, hand freezers do not make as good a grade of ice cream. It is never frozen enough, and, as the operation is not continuous, the cream is never as smooth.

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trustees. This hospital ward, which is constructed in five-foot units, represents the latest hygienic and scientific principles of hospital construction, and can be quickly erected, or removed from place to place, as necessity demand. Sliding panels separate the building into wards, kitchens and nurses' apartments. The material is cedar. An interesting phase of the construction of this model is the ability to convert it into a dwelling for the refugees in France and Belgium after the war.

John E. Andrus, wealthy ex-congressman and retired drug dealer of Yonkers, N. Y., with other interested persons, has recently incorporated the Surdna Foundation, an organization to be devoted to religious, charitable, scientific, educational and eleemosynary purposes. The first step of the founders, it is announced, will be to establish a fund of $2,500,000 for the erection and maintenance of homes for orphan children, preference to be given to children of soldiers who lose their lives in the present war. The main office of the Foundation will be in Yonkers.

Although it will not be ready to receive patients before March 1, the new Bikur Cholim Kosher Hospital, erected at Lafayette and Sumner avenues, Brookyln, was dedicated January 13. The hospital is an outgrowth of a free dispensary for the sick poor maintained at No. 84 Cook street by an organization of Jewish women. It was designed to provide hospital service for the needy of the section in which it is located, especially the orthodox Jews, for whom no special arrangements are made in other hospitals, but patients of all denominations will be accommodated, it is announced. The capacity is 40 beds.

The Beth Moses Hospital Society, Brooklyn borough, New York city, filed plans in January for a 5-story fireproof hospital, which, when finally completed, will accommodate 300 patients. The building will be erected at Stuyvesant avenue and Hart street and will consists of two wings, each 41½x90 feet, with a connecting part 46x62 feet. Only one wing will be built at this time, but this will be a complete hospital in itself, having administration offices, 115 beds for patients, and a small dispensary. Tentative arrangements had been made for beginning the construction of this hospital last year, but when the United States entered the war it was decided to postpone the undertaking, owing to the uncertainty of financial conditions.

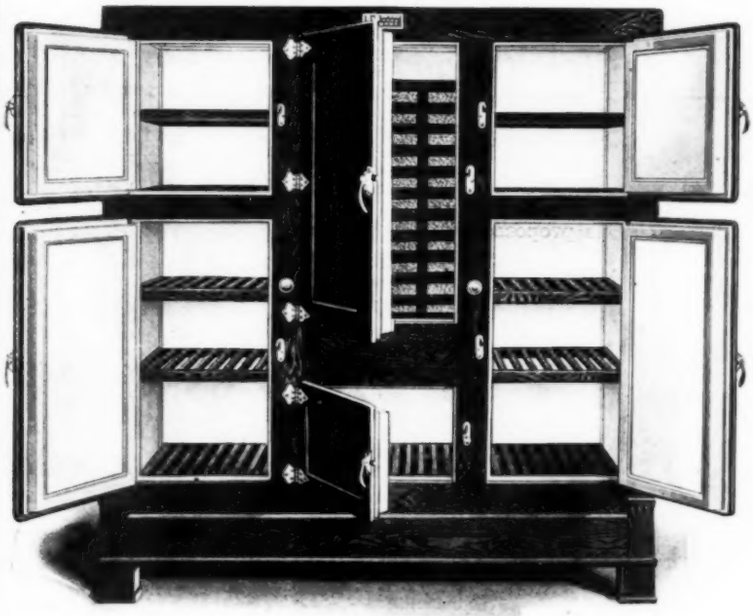
Columbia University, New York, announced in January a plan for the establishment by its medical faculty of a diagnostic research clinic, designed to serve the great middle class of self-supporting people who cannot afford to pay the high fees usually charged by specialists for scientific diagnosis and treatment, but who do not wish to accept charity and are willing to pay for such services on a basis consistent with their incomes. It is proposed to conduct the clinic on a large scale, making it a medical center for a group of probably half a dozen hospitals. Patients will be referred to their family physicians for treatment after diagnosis has been made, except in cases demanding special treatment which the physician is not qualified to give. Hospital treatment will be advised when found necessary or deemed expedient. All laboratory and clinical workers will be paid, and no patients will be examined or treated free, patients of the non-paying class being already provided for in the municipal and other charitable institutions. Definite steps toward making the clinic a reality will probably be taken before the close of the present academic year, it is said. Along with this announcement it is stated that the addition of a fifth year to the medical curriculum of the university is contemplated, the additional work to be done in a hospital under college discipline.

Middle Western States

Construction work will be started in March on a $150,000 hospital for the University of Oklahoma, Oklahoma City.

A free clinic for the treatment of venereal diseases is soon to be opened by the Iroquois Memorial Emergency Hospital, Chicago.

Dr. Frank L. Farnum has been appointed assistant superintendent of the Toledo State Hospital, Toledo, Ohio, to fill the vacancy caused by the resignation of Dr. N. H. Young, who accepted a similar position at the Western



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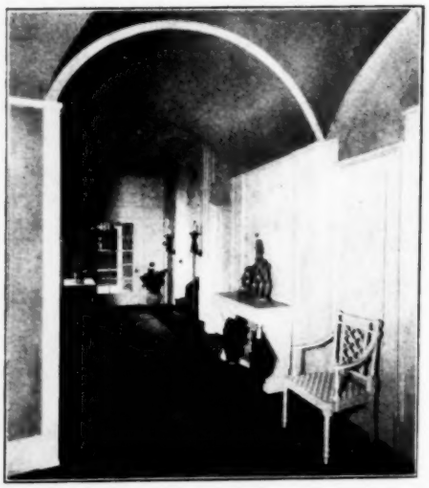

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Washington State Hospital for the Insane at Ft. Steilacoom.

The erection of a $50,000 fireproof addition to St. John's Hospital, Red Wing, Minn., is under consideration by the officials of that institution.

By the will of the late Col. John Hicks, wealthy newspaper owner of Oshkosh, Wis., the Winnebago County Tuberculosis Sanatorium will receive a bequest of $20,000.

Milwaukee County, Wis., will erect an isolation hospital to care for emergency contagious cases from the entire county outside of Milwaukee. A plant costing $100,000 is proposed.

A movement has been started in Michigan urging the acquisition and equipment by that state of a war emergency hospital train similar to that maintained by the state of Maryland.

The boards of supervisors of Ottawa, Allegan and Muskegon counties, Michigan, are considering a proposition that these counties unite in the erection and maintenance of a tuberculosis hospital.

Nearly $20,000 has been subscribed at Rice Lake, Wis., toward the erection of a hospital to be conducted by the sisters of St. Joseph, and it is expected that the building fund will be completed by spring.

A new home for the Mansfield General Hospital, Mansfield, O., will be opened about March 1. The building, which was erected at a cost of $75,000 has been completed for some time, but there has been delay in getting some of the equipment.

An election will be held in Audrain County, Mo., April 5, on a proposition to build a modern county hospital at Mexico. The Mexico Hospital Association has offered its equipment to the county for the new institution in the event it becomes a reality.

The commissioners of Randolph County, Ind., have accepted a gift of a plot of ground in the town of Winchester as a site for a county hospital, also $10,000 in money toward the establishment of such an institution. Mrs. W. E. Miller, of Winchester, is the donor.

A building permit was issued in Minneapolis last month for a new home for "Lymanhurst," the children's branch of the Minneapolis City Hospital. The cost of the structure will be about $125,000 and the contractors have obligated themselves to complete it by October 1.

Contracts have been awarded in Bellefontaine, Ohio, for the erection in that city of a community hospital to cost, with equipment, approximately $50,000. The institution is a gift to the city from Mrs. Rebecca R. Williams and will be named the Mary Rutan Hospital in memory of Mrs. Williams' mother.

Construction work is well advanced on an $80,000 fireproof building at Aurora, Ill., to house the Miller Diabetic Sanitarium, which is being established by Dr. R. C. Miller and others. Accommodations for 60 patients are being provided. Plans for the building were drawn by Architects Worst & Shepardson, of Aurora.

A cafeteria system has lately been installed in the nurses' home of Lakeside Hospital, Cleveland. Miss Graves, head dietitian at Lakeside, explains that the step is as yet an experiment, undertaken because of difficulty in securing waitresses, but many MODERN HOSPITAL readers will doubtless be interested in the outcome.

Owing to ill health, Dr. Frank Harmon, for 37 years superintendent of Longview Hospital, Cincinnati, has been compelled to ask for indefinite leave of absence, which has been granted by the board of trustees of the institution, with the provision that Dr. Harmon's salary be paid in full during the time that he finds it necessary to be away.

A new community hospital, erected and equipped at a cost of $200,000, has lately been opened at Jackson, Mich. It is known as the W. A. Foote Memorial, in memory of the late W. A. Foote, of Jackson, whose widow donated the site for the building. Dr. C. G. Parnall, city health officer, whose efforts were largely responsible for the establishment of the institution, has been made medical di-

Chocolate or Cocoa Blanc Mange

Add ½ cup Minute Tapioca, ½ cup sugar and a little salt to 3 cups chocolate or cocoa made proper strength for drinking. Let cook 15 minutes, stirring frequently. Remove from the stove, flavor with vanilla and pour into a mold. Shown here molded in a tea cup and served with whipped cream.

Danish Pudding.

Cook ½ cup Minute Tapioca in 3 cupfuls hot water 15 minutes. Add ½ cup sugar, 1 saltspoon salt and 1 small tumbler grape jelly. Stir till dissolved. Serve ice-cold with sugar and whipped cream. Pint ripe strawberries may be used in place of jelly

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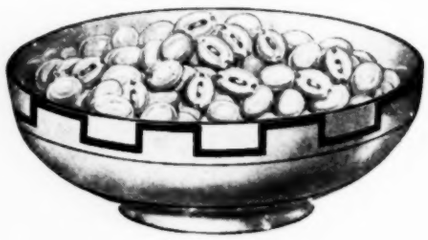

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And Corn Puffs

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rector. The out-patient department is in charge of Dr. C. R. Dengler.

Dr. J. L. Eaton, superintendent of State Hospital No. 4, Farmington, Mo., has recently inaugurated a tree-planting movement, which he proposes to make an annual custom at the institution. Hospital No. 4 is already noted for its modern buildings, beautiful grounds, and excellent hygienic surroundings, and considerable work has recently been done in the way of landscape gardening.

Preparations are being made for the early opening of the former White Hospital at Ravenna, O., as a county institution. The White Hospital was founded by Dr. M. W. White in 1890 and conducted by him until recently when he was compelled by ill health to retire from active work. Pending the opening of the county hospital Dr. L. A. Wolf has been operating an emergency hospital in a part of the building.

A nurses' home to accommodate 67 nurses and 17 maids is under construction for the Hackley Hospital, Muskegon, Mich. The building has a frontage of 120 feet, a depth of 72 feet, and consists of two stories and basement. The exterior construction is of wine-colored face brick and cut stone, with roof of composition shingles on framing heavy enough to hold roofing tile to be put on at some future time. All floors are of reinforced concrete, poured in place on steel forms. In the first story are a lobby, reception room, office, private suite for superintendent, two bath and toilet rooms, and a number of bedrooms. The second floor contains a dormitory room, bath and toilet rooms, a sewing room, and double and single bedrooms. A gymnasium, a large class room, a trunk room, store room, two large toilet and bath rooms and two large bedrooms are provided in the basement. Opening off of corridors at the rear of the building, on all floors, are semi-octagonal screened porches. Corridor floors, are of composition corkstone. Floors in private rooms are oak. All trim of the first and second stories is of red oak, fumed finish. In the basement the trim is natural pine, except in the maids' quarters, where flush metal trim is used. The plans for the home were drawn by Architect H. H. Weemhoff, of Grand Rapids.

Southern States

The Riverside Hospital at Selma, Ala., will go out of business in the near future.

Drs. Guy F. Duncan and W. L. Jackson, High Point, N. C., are establishing a private hospital in that city.

The laboratory and operating room buildings of Camp Green, base hospital, Charlotte, N. C., together with their equipment, were burned December 30.

The Alexandria Sanitarium, Alexandria, La., recently acquired by the Baptist denomination, will be improved in the near future by the erection of a $50,000 building.

The Navy Department has acquired the Hargrove Institute, a Methodist college at Key West, Fla., and is remodeling it for hospital purposes. One hundred thousand dollars will be expended on improvements.

Slicer's Hospital, Inc., Roanoke, Va., Dr. W. S. Slicer, president and treasurer, has recently been granted a charter to operate a hospital. Dr. Slicer formerly conducted the Shenandoah Hospital at Roanoke.

A tuberculosis sanatorium, erected at a cost of $10,000, has recently been opened at Winston-Salem, N. C., by Forsyth County. The institution is in charge of Dr. A. C. Bulla, county health officer, with Mrs. Emma Swain as matron.

Contracts have been awarded by the War Department for the erection of 50 additional buildings for the base hospital at Camp Gordon, near Atlanta, Ga. The additions will include two large wards for the treatment of dental ailments.

At a recent meeting of the directors of the Jewish Hospital, of Louisville, Ky., I. W. Bernheim, and Bernard Bernheim, of Louisville, through their attorney, announced a gift to the hospital of $100,000 for the purpose of building extensions.

The War Department is remodeling the barracks at Fort Logan H. Roots, Little Rock, Ark., for hospital pur-

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poses. Accommodations for 1,000 patients are being provided and it is expected that the work will be completed by February 1.

Mrs. J. P. Burnett, superintendent of nurses at the Baptist Sanitarium, at Houston, has lately been appointed superintendent of that institution, succeeding Dr. D. R. Pevoto, who was elected assistant secretary of the executive board of the Baptist General Convention of Texas.

Arrangements are being made to open a community hospital in a hotel building at Stuttgart, Ark. The management of the hospital will be in the hands of a board of directors consisting of one representative from each church in the city. Mrs. Rex Wilcox has been appointed superintendent.

A fireproof sanatorium on the cottage plan will be erected at Chase City, Va., in the near future by the Mecklenburg Springs Company, a new corporation, capitalized at $500,000. Dr. C. J. Edwards, of Philadelphia, is president of the corporation. The other officers are: Dr. A. T. Finch, vice-president; T. A. Brooks, secretary, and Harvey Holleman, manager; all of Chase City.

The Tennessee State Board of Control has invited bids on the erection of several buildings for the Central Hospital for the Insane, at Nashville, including an administration building to cost approximately $27,500; a tuberculosis hospital, estimated to cost $17,500; a hospital for negroes, for which an appropriation of $75,000 has been made, and two dining halls, each figured at $20,000.

A suit brought against the Jewish Hospital, of Louisville, Ky., asking $3,000 damages on account of injuries suffered by a young man while operating an elevator at the hospital, has been decided in favor of the hospital, the judge on the case rendering the opinion that, being a charitable institution, the hospital is not liable for damages occasioned by negligence of its employees. In concluding his opinion the judge says: "A charitable institution, such as the defendant, is not liable for the acts of its servants or employees, because the doctrine of respondeat superior does not apply to such an organization on grounds of public policy. Public policy forbids that the funds which are held in trust for public charity may not be dissipated by judgments for personal injury. It seems clear that a public charity, such as defendant, is performing a public function, governmental in its nature, and doing such work as the state itself would be required to do to alleviate suffering and serve the afflicted, and the mere fact that the charity is supported by private contribution renders it none the less free from such liability than it would be if it were supported by state taxation."

Rocky Mountain and Pacific Coast States

The Rawlins Hospital, Rawlins, Wyo., was burned in December.

A brass band has recently been organized by employees of the Glendale Sanitarium, Glendale, Cal.

The Great Falls (Mont.) city council has authorized the erection of a detention hospital for that city.

Ground was broken in December for a new home for nurses at the State Hospital for Insane, Patton, Cal.

The directors of the Pomona Valley Hospital, Pomona, Cal., are considering a plan to erect a home for the nurses of that institution.

The California counties of Kern, Tulare and Kings are combining to build a tuberculosis hospital. A $75,000 plant is being planned.

Contract was reported to be awarded in January for the erection of a new wing to the San Francisco (city and county) Hospital, San Francisco, Cal.

Three hundred and sixty nurses have made application to the Utah state board of examiners of nurses for licenses during the first eight months of the board's existence.

The Orange County Hospital, Orange, Cal., opened a new service building in January. The building is of wood and plaster construction, with tile roof, and cost about $8,000.

A 4-story and basement reinforced concrete building will be erected in the near future as an addition to Mary's

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